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## Turnover in the Medicaid Population in 1980

by Mary Beth Roth, Embry M. Howell, and LuAnn Reeves

Department of Health and Human Services
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Research Triangle Institute
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# INTRODUCTION

In 1965, Congress passed legislation amending the Social Security Act to create the Medicare (Title XVIII) and Medicaid (Title XIX) programs. These programs were intended to meet the health care needs of poor and near-poor people. Through the establishment of Federal guidelines which set minimum standards for services and mandatory eligibility criteria, the amendment sought to ensure that the poor had access to the same quality and quantity of care available to more fortunate Americans.

However, as health care costs soared nationwide throughout the 1970's, States' abilities to meet the demands for all entitlement programs dwindled. As public assistance programs, particularly Medicaid, retrenched in response to fiscal pressure, policymakers began the painful process of juggling demand and equity with resources. In particular, the Omnibus Reconciliation Act (OBRA) of 1981 allowed States more latitude in the formulation and structuring of benefits and eligibility in their Medicaid programs.[1]

One group of Medicaid enrollees may be affected greatly by changes in eligibility and benefits. This is the group of persons who are not continuously enrolled due to changes in employment status, health status, or family composition. These people, who are eligible for Medicaid for short periods of time, are at the margin of Medicaid eligibility. These "turnover" Medicaid enrollees are the subject of this paper.

The paper describes the extent to which turnover in Medicaid enrollment occurred in 1980, a particularly significant study period because it can serve as a benchmark comparison year for analyses of post-OBRA enrollment trends. A sociodemographic and health status profile of turnover enrollees and an analysis of their health service utilization are provided. The analyses are based on data from the National Medical Care Utilization and Expenditures Survey (NMCUES) which provides information on health care utilization for the entire noninstitutionalized U.S. population in 1980.

## Survey Background

The goal of the National Medical Care Utilization and Expenditure Survey (NMCUES) was to improve our understanding of the ways in which Americans use and pay for health care. In addition to providing a reliable statistical description of the types of health services consumed and the amount of dollars spent for them, NMCUES was designed to permit health

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[1]For a detailed analysis of OBRA see Medicaid in the Reagan Era: Federal Policy and State Choices by Bovbjerg and Holahan, Urban Institute Press, 1982.

policy analysts to investigate a broad range of issues concerning the financing and delivery of health services in the United States.

NMCUES data reflect the health care experience of the civilian noninstitutionalized population of the United States during 1980. NMCUES is the seventh survey of national health care utilization and expenditures that has been conducted since 1953. The most recent survey prior to NMCUES, the National Medical Care Expenditure Survey, was conducted in 1977. NMCUES was designed with special emphasis on the experiences of Medicare and Medicaid beneficiaries.

The NMCUES data comprise three components:

- A randomly selected national household survey (HHS) sample panel of the civilian noninstitutionalized population.
- A randomly selected four-State Medicaid household survey (SMHS) sample panel of the civilian noninstitutionalized population.
- A Medicare and Medicaid administrative records survey (ARS) sample.

Each survey component was designed on a longitudinal basis to provide accurate representations of medical care events occurring throughout 1980.

HHS employed a national probability sample of the civilian, noninstitutionalized population with a sample of 6,600 households (about 17,900 people) representing the national Medicare and Medicaid populations as well as the general population. Five interviews (each group of interviews is referred to as a survey "round") were conducted with respondents regarding events related to medical care received in 1980. The first, second, and fifth interviews were conducted in person, while the third and fourth interviews were conducted primarily by telephone. A core questionnaire was employed in each interview. This document contained questions concerning medical care utilization, expenditures, sources of payment, health insurance coverage, and employment. Certain summary information reported in Rounds 1-4 was reviewed with the respondents at the time of the next interview, referred to as the "summary update"; inaccurate reports were updated at that time. In addition, questionnaire supplements were used in the first, third, and fifth rounds of interviews. The supplement for the first round contained questions concerning demographic and social characteristics, limitations in activity, and family income. The Round 3 supplement asked questions about access to care. The Round 5 supplement asked detailed questions concerning employment during 1980, individual income by source, and functional limitations.

SMHS was in fact four separate surveys conducted in New York, California, Texas, and Michigan. A stratified sample of sufficient size was drawn from each State's Medicaid eligibility file to yield 1,000 Medicaid noninstitutionalized cases (about 3,400 people) in each State. Essentially the same

questionnaire and virtually identical data collection and processing steps were used for SMHS and HHS.

The third NMCUES component, ARS, was designed to provide Medicare and Medicaid administrative records for linkage to respondent reports. For HHS, self-reported Medicare and Medicaid enrollment status was verified, Medicare claims were collected, and the Medicaid eligibility status of a sample of low-income persons who did not report Medicaid enrollment was determined. For SMHS, Medicaid enrollment status was verified and Medicaid and Medicare claims data were collected for survey respondents. The merger of survey data on beneficiary characteristics and out-of-pocket expenditures with eligibility and reimbursement data from Medicare and Medicaid administrative records is a unique feature that increases the value of NMCUES for the study of Medicare and Medicaid policy issues.

NMCUES was conducted during the period of February 1980 through April 1981. The overall response rate for HHS was 89 percent. SMHS response rates were 82 percent for California, 80 percent for Michigan, 77 percent for New York, and 92 percent for Texas.

The Health Care Financing Administration (HCFA) and the National Center for Health Statistics (NCHS) cosponsored the survey. The data were collected by the Research Triangle Institute and its subcontractors, the National Opinion Research Center (NORC) and SysteMetrics, Inc. (SMI).

This report is one of a series of descriptive reports being prepared by HCFA's Office of Research and Demonstrations, Division of Beneficiary Studies, RTI, and SMI. The series will concentrate on current health care policy issues related to the Medicare and Medicaid programs. It is intended to provide information for use by government agencies, legislative bodies, professional associations, private insurers, and others with an interest in national patterns of health care and expenditures. A companion series of reports focusing on the health experiences of the national population will be published by NCHS.

## Scope of the Medicaid Program[2]

In 1965, Congress passed legislation amending the Social Security Act to create the Medicaid program (Title XIX) as well as the Medicare program

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[2]The description of the Medicaid program that follows has been extracted in part from the paper "Trends in Tennessee Acute Care Utilization Expenditures, 1974-1978," by Cromwell, et al., published in the June 1982 issue of the Health Care Financing Review. The reader should be aware that the Omnibus Budget Reconciliation Act of 1981 made major changes to the program which are not reflected in this discussion. The act limits Federal reimbursements to States and modifies coverage and service requirements.

(Title XVIII). Medicaid provides direct payments to providers of health care for certain low-income persons--those who are elderly, blind, disabled, or members of families with dependent children, while Medicare covers health insurance for elderly and disabled people.

The Medicaid program is financed jointly by Federal and State funds, but it is administered independently by each State within broad Federal guidelines. The guidelines specify certain basic services, the extent of coverage, and minimum administrative requirements. Beyond these guidelines, the States are given flexibility to determine eligibility, coverage of additional services, duration of coverage, methods and levels of reimbursement, and administrative structure. As a result, Medicaid is not one program, but a collection of different programs in each State (or territory), reflecting alternative approaches of financing health care for poor people.

Despite the expectations of the Medicaid program's architects that it would be smaller and less significant than the Medicare program, it has experienced dramatic growth in total expenditures since its creation, becoming highly visible at both the Federal and State levels. By early 1980, State Medicaid program expenditures accounted for between 5 and 10 percent of individual State general operating funds (Davidson, et al., 1984, Rymer and Adler, 1984). These factors are forcing States to devise program changes concerning eligibility, benefits, or reimbursement approaches that will enable them to maintain fiscal stability as expenditures increase and the Federal role changes.

The Medicaid program is linked to the welfare system and covers two types of recipients:

- Categorically Needy Eligibles: These persons are eligible for Medicaid because they qualify under the Aid to Families With Dependent Childern (AFDC) program or the Supplemental Security Income (SSI) program for elderly, blind, and disabled persons.

- Medically Needy Eligibles: These persons are eligible for Medicaid because they would qualify for either AFDC or SSI except that (1) their income levels are slightly above the categorically needy program standard but below the medically needy standard or (2) their income is higher than the medically needy standard but falls below it after subtracting medical expenses (these are known as "spend-down" eligibles). Coverage for medically needy eligibles is optional for the States.

Since States have flexibility to establish financial criteria for welfare eligibility (AFDC and SSI), they simultaneously control income eligibility levels for Medicaid. Because eligibility levels vary among States, individuals in identical financial circumstances residing in different States are not necessarily treated identically.

A special subset of persons enrolled in Medicaid is elderly and disabled persons who are also enrolled in Medicare (often called "cross-overs"). For these persons, Medicaid covers the coinsurance and deductibles required by Medicare, as well as expenses for services not covered by Medicare. In many States, the Medicaid program also pays the premium required by Medicare to enroll in Part B supplementary medical insurance.

Most States include within their Medicaid program one or more "State-only" eligibility groups of low-income persons who do not fall within the categorical groups described above. The services provided under these State-only programs are fully funded by the State; however, the Federal Government shares in their administrative costs.

Many other low-income people are not enrolled in Medicaid. This may be because their income is above the eligibility level for the State (although still near or below the poverty level), because they do not meet one of the categorical requirements for Medicaid (elderly, blind, and disabled persons, and persons in families with dependent children), or because they do not choose to participate in Medicaid. These persons may have health insurance coverage of other forms or may have no insurance.

Medicaid provides comprehensive coverage of health expenses for people who are eligible for benefits. Certain services are mandated and must be provided by all States. These include inpatient hospital services, physician's services, and skilled nursing services. Cost sharing by beneficiaries in the form of deductibles, coinsurance, or copayments is not allowed for mandated benefits. Optional benefits that may be provided by the States include drugs and intermediate care services (both provided by most States), as well as dental services (provided by many States). The use of copayments for option services is allowed but is not widespread. In 1980, 17 States required some form of copayments; 8 of those required only a nominal copayment for prescription drugs (generally $1.50 per prescription) and in no case was the copayment more than $3.00 per service (Muse and Sawyer, 1982).

In addition to discretion in the kinds of services offered, States are also allowed to determine the duration and/or amount of individual service coverage. Thus, the number of covered hospital days, skilled nursing facility days, or physician visits varies across the States.

## Review of Previous Analyses of Turnover

The term "turnover" as used in this paper is defined as the movement of individuals on and off Medicaid enrollment files. Turnover may be caused by changing health status or other life events such as becoming employed or getting married. High turnover complicates the estimation of the size of the Medicaid population over time, since many persons are eligible only a portion of any given time period.

Until fairly recently, little information has been available on how long people remain eligible for Medicaid. However, several research projects have examined turnover in the Aid to Families with Dependent Children (AFDC) program. Since Medicaid eligibility is linked to this public assistance program, it is likely that the dynamics of enrollment and disenrollment are similar for Medicaid and AFDC. Therefore, before the methods applied to examining Medicaid turnover are discussed, a brief review of previous work analyzing AFDC turnover is presented.

In one of the first economic analyses of welfare enrollment, Saks (1975) first analyzed administrative AFDC case data compiled for years 1958 through 1967 by the New York City Welfare Department. He concluded that potential earned income in relation to the welfare grant received was the primary predictor of entry into the welfare system. Secondarily, age and presence of school-aged children played a strong role. Contrary to the administrative wisdom of the day, the presence of older school-aged children did not reduce the need for the mother in the home as much as expected. Health of family head and migrant status were also observed as being related to entering the welfare system. Saks determined that bascially the same set of variables affecting entry into welfare also affected exit from welfare, except in an inverse manner. The higher the expected earned wage rate, the more likely one was to leave welfare. Additional variables that played a small role in extended spells of dependency were previous experience with welfare and illness.

In a comprehensive analysis of welfare enrollment, Bane and Ellwood (1983) used the Panel Study of Income Dynamics (PSID), an annual survey begun in 1968, which included 6,000 households in 1980. The PSID collects comprehensive income and demographic data and oversampled low-income families. A subsample of 676 female-heads of family with children were analyzed over years 1968-1980. Because of the relatively large sample size (compared to previous studies) and the long duration of data available, Bane and Ellwood were able to observe effects of certain characteristics that previous research had found insignificant. In particular, marital status and relationship changes were determined to play large roles in entering welfare. Bane and Ellwood found that three-fourths of all AFDC spells began with a relationship change whereby a female-headed family with children was created. One-third end through marriage or reconciliation. As demonstrated in other research, Bane and Ellwood also found that increases in earnings increase probabilities of leaving welfare. Bane and Ellwood found that almost half of all women who enroll in AFDC leave the AFDC program within 2 years. On the other hand, 95 percent of women who remain on welfare for a third year will have stays of at least 6 years in duration.

Among the first studies to investigate turnover specifically in Medicaid enrollment was the work of Wilensky, et al. They used data from the National Medical Care Expenditure Survey conducted in 1977. They focused on enrollment turnover and the insurance status of the Medicaid population when not

enrolled. Medicaid enrollment was self-reported and not verified by administrative records as in NMCUES. Wilensky, et al. found that of the 20.8 million people enrolled in Medicaid during 1977, 43 percent reported being enrolled throughout all of 1977. Other findings included that of the 11.8 million covered by Medicaid only part of the year, 4.3 million (or 36 percent) were otherwise insured throughout the time they were not Medicaid enrolled. While the authors expected that part-time Medicaid enrollment would be associated with a high degree of continuous part- or full-time employment, they found that 38.5 percent of people enrolled part-year had no work experience during 1977.

A study which comprehensively reviewed trends in Tennessee Medicaid enrollment included an analysis of Medicaid turnover by aid category. Cromwell, et al. (1982) extracted Medicaid data from person-level enrollment and inpatient hospital claims files, maintained by the Tennessee Medicaid Agency, for the calendar years 1974 through 1978. Turnover and utilization rates were determined on a quarterly basis. The authors found that AFDC Medicaid enrollees showed consistently greater turnover than disabled Medicaid enrollees.

Cromwell, et al. further compared quarterly hospital utilization rates for individuals in three enrollment turnover classes. Long-term enrollees were defined as continuously enrolled during years 1975 to 1977. This group comprised 47 percent of AFDC enrollees and 60 percent disabled enrollees. Intermediate-term enrollees were continuously enrolled between 6 and 12 quarters and short-term enrollees were continuously enrolled for 6 quarters or less. Utilization rates were inversely correlated with length of enrollment. Admission rates for short-term AFDC enrollees were up to three times higher than long-term AFDC enrollees and up to six times higher for short-term disabled enrollees.

A project underway at the Health Care Financing Administration is acquiring complete claims files from five State Medicaid agencies. According to enrollment data recently compiled, the proportion of enrollees continuously enrolled throughout all of 1980 ranged from 48 percent in California to 59 percent in New York. These data also indicate that AFDC enrollees tend to be enrolled full-year less often than SSI enrollees.

## Definitions, Methods, and Limitations

Data contained in this report are derived from the national household sample, the administrative records survey which verified Medicaid enrollment using State records, and a data base on Medicaid program characteristics developed to enhance NMCUES analyses. An overview is presented here of the general methods used in arranging the data. Definitions of measures and variables used throughout the report are also provided. Detailed variable definitions can be found in Appendix I.

The fundamental measure of enrollment used throughout this report is persons ever enrolled. These represent all persons who either reported or were imputed to be enrolled in Medicaid at any point during the survey period. In most analyses the Medicaid population is divided into two groups: those people enrolled throughout all days of 1980 for which they were eligible for the survey -- referred to as full-year enrollees, and those people enrolled for part of the year -- referred to as part-year enrollees. Mean length of enrollment is also examined, generally for the part-year population. Mean length of enrollment is calculated by adding together all the number of days enrolled for part-year enrollees and dividing by total part-year persons ever enrolled.

The part-year Medicaid population is further divided into two subgroups: when enrolled and when not enrolled. In particular, part-year enrollees are arrayed according to whether they had other forms of health insurance when not enrolled. Insurance is any entity other than the provider, patient, or patient's family which assumes at least part of the financial responsibility for care. In every round of the survey respondents were asked whether they had insurance coverage. Therefore, it is possible to examine whether Medicaid recipients had other forms of insurance when they were not enrolled in Medicaid. In the insurance coverage analyses, part-year enrollees, when not enrolled, are divided into two groups: those people who were insured when not Medicaid-enrolled and those people who did not have insurance when not Medicaid-enrolled. Respondents who reported being both insured and uninsured when not Medicaid enrolled were included in the insured group.

Comparisons between full- and part-year enrollees are presented for a series of sociodemographic characteristics previously demonstrated as being related to turnover in enrollment. These include age, sex, race, ethnicity, residence, employment, and family characteristics. In the employment analyses, persons under 14 years of age are excluded from the calculations. The family characteristics examined include: sex, educational status and marital status of family head; presence of children under 18 years; family size; and family income. Persons are assigned to the family in which they resided for the longest period of time during the survey. For example, if a daughter after spending 9 months in a family left the family to become married, she was classified according to the characteristics of the first family. People living in households where the head was under 17 years are excluded from the analyses of educational status and marital status of family head.

The full- and part-year Medicaid populations are also examined by Medicaid aid category. Each period of Medicaid enrollment is associated with one of the following three aid categories:

- Supplemental Security Income (SSI) for the aged, blind and disabled.

- Aid to Families with Dependent Children (AFDC).

- State-only.

Medically needy eligibles are not separately identified. It is unfortunate that the medically needy can not be distinctly identified because these recipients are believed to experience the most turnover. In one analysis, Medicaid enrollees who reported receiving welfare cash assistance are separated from those not receiving cash assistance. The noncash group are assumed to include most of the medically needy.

One measure of health status, mean restricted activity days, is examined for full- and part-year enrollees. Restricted activity days are self-reported days in which the respondent either: remained in bed for more than one-half day due to illness or injury, was absent from work for more than one-half day due to illness or injury, or cut down on his/her activity due to illness or injury. Restricted activity days were computed by adding together the number of bed disability days, work-loss days, and cut-down days and subtracting out the number of work-loss days "spent in bed" to remove any duplication of days.

Utilization of health services is examined in detail according to when enrolled and when not enrolled. Utilization rates are expressed in terms of visits per person and hospital discharges per 1,000 persons.

Finally, enrollment patterns are examined according to a small set of Medicaid program characteristics which may affect enrollment duration. Enrollees are sorted according to States with and without the selected program features and simple counts of enrollment and mean length of enrollment are provided.

The NMCUES is not an ideal vehicle through which to examine Medicaid turnover, since observations of Medicaid enrollment were obtained for only 1 year. Moreover, the length of the Medicaid enrollment episode of each person reporting Medicaid when the survey began is not known. Similarly, it is not known at the end of the survey how many persons would have continued to be enrolled for many months after the end of the survey. Therefore, an analysis of turnover in Medicaid enrollment based on NMCUES data can only be a descriptive "snapshot" assessment of what existed in 1980.

The NMCUES estimates of full-year enrollment are higher than those obtained from other studies (such as NMCES and the project involving administrative records data currently underway at HCFA). Medicaid enrollment status and dates of enrollment in NMCUES were assigned by the best-estimation process. During this process, Medicaid enrollment and dates were obtained from State administrative records for persons who supplied Medicaid ID numbers. Respondent-reported coverage and dates were used in addition to the administrative records data for persons who did not give Medicaid ID

numbers (but said they were covered and gave economic and demographic evidence that they really were covered), and for persons who had some administrative records data but may have moved to a different State or county. Further information on the best-estimation process is found in Whitmore (1983).

Both statistical and logical imputations were performed on missing data items. Appendix III gives more details on the imputation process.

Since the data in this report are based on a sample of the U.S. population, they are subject to sampling error. Any differences which are specifically mentioned in the text have been examined for statistical significance at the 5 percent level. Nonsignificant results are not reported. In addition, a relative standard error (the standard error divided by the survey estimate) is presented for each estimate so that the reader can examine and interpret all results. Relative standard errors appear in Appendix IV.

The weights used in this report are based on final 1980 census counts of the population. Previous reports in this series used weights based on 1980 census projections. Therefore, the estimates in this report may differ from estimates presented in earlier reports.

Data Highlights

Highlights of the findings presented in more detail in the following section include:

- More than 25 million people were enrolled in Medicaid during 1980 of which 66 percent were enrolled for the entire year and 34 percent were enrolled for part of the year (Table A).

- The age group with the shortest mean length of enrollment, when enrolled part-year, was the elderly. Persons over 65 years of age tended to be enrolled 143 days as compared to children under 6 years of age who tended to be enrolled 215 days. Mean length of enrollment for all part-year enrollees was 190 days (Table B).

- Nonwhite people were less likely to be enrolled part-year than were white people. Only one-quarter of nonwhite people were enrolled part-year as compared to 38 percent of whites (Table 1).

- Regional differences in enrollment duration were observed in 1980. People in the South tended to be enrolled part-year less often than people from the North Central region. In addition, the length of enrollment was shortest for the turnover group in the South (Table 1).

- Almost half of the Medicaid population (47 percent) lived in male-headed families during 1980. Persons in female-headed families with children were less likely to be enrolled for a part-year than persons in male-headed families with children. When children were not present, enrollment patterns of persons in female-headed families and persons in male-headed families were similar (Table 2).

- Over 11 million Medicaid enrollees, or 68 percent of working age enrollees, were unemployed or not in the labor force. Mean length of enrollment was shortest for persons over 65 years of age not in the labor force when compared to the national mean (Table D).

- Of the 8.6 million Medicaid recipients enrolled for part of 1980, 62 percent reported having some other form of health insurance (Table 3).

- Because of Medicare coverage the age group most likely to be insured when not Medicaid enrolled were people over age 65. Children under 18 years of age were the least likely to be insured when not Medicaid enrolled (Table 3).

- People enrolled part of the year used more health services than people enrolled throughout all of 1980 (Table H).

- States with "generous" eligibility options experienced larger episodes of part-year enrollment than did restrictive States (Table 6).

## FINDINGS

### Turnover and Sociodemographic Characteristics

The NMCUES data were analyzed first to identify the extent of turnover in the national Medicaid population and then to examine a variety of sociodemographic characteristics, health status, and health services utilization patterns of both full- and part-year enrollees. Table A displays persons ever enrolled by length of enrollment. Mean lengths of enrollment according to enrollment duration are also provided. More than 25 million people were ever enrolled in Medicaid during 1980 of which 66 percent were enrolled for the entire year and 34 percent were enrolled less than the entire year. On the average, part-year enrollees were enrolled for slightly more than half the year (190 days).

The age distribution of the full- and part-year groups are compared in Table B. There were slight differences in the proportion of people enrolled part-year by age, but none was significant. However, mean length of enrollment differed. Mean length of enrollment for part-year enrollees was shortest for the elderly (143 days) when compared to the national mean. This is probably due to the availability of Medicare coverage, which pays for most of the health-related expenses of people in this age group. Children under 18 years of age experienced the longest part-year enrollment spells (216 days).

Table 1 shows other demographic characteristics of full- and part-year enrollees. White people were more likely to be enrolled for part of the year (38 percent) than nonwhite people (26 percent). There were similar ethnic patterns, but they were not as pronounced. People of Hispanic origin were enrolled for part of the year slightly less than non-Hispanic people (30 percent Hispanic, 35 percent non-Hispanic, but this difference was not statistically significant).

Regional differences in enrollment patterns existed in 1980. Four out of 10 people in the North Central region were enrolled part-year. This proportion was in sharp contrast to the Southern region where 30 percent were enrolled part of the year.

Table 1 also shows that the mean length of enrollment for part-year enrollees varied by demographic characteristics. Statistically significant differences in mean length of enrollment were evident. Non-Hispanic people were enrolled 187 days on the average, far less than the 218 days experienced by Hispanic people. There were also significant differences by region. The average duration of part-year enrollment in the South was only 143 days. This is less than the mean length of enrollment for part-year enrollees in the Northeast (226 days). Both of these regions exhibited means

Table A

Persons ever enrolled in Medicaid and mean length of enrollment, by enrollment duration: Noninstitutionalized Medicaid population, United States, 1980

| Enrollment duration | Persons ever enrolled | | Mean length of enrollment in days |
|---|---|---|---|
| | Millions | Percent | |
| Total ever enrolled | 25.1 | 100 | 306 |
| Total full year | 16.5 | 66 | 366 |
| Total part year | 8.6 | 34 | 190 |
| Total part year | 8.6 | 34 | 190 |
| 1 - 90 days | 1.6 | 19 | 58 |
| 91 - 180 days | 2.6 | 31 | 124 |
| 181 - 270 days | 1.8 | 20 | 221 |
| 271 - 365 days | 2.6 | 30 | 319 |

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 9 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table B

Percent distribution for persons ever enrolled full and part year and mean length of enrollment, by age: Noninstitutionalized Medicaid population, United States, 1980

| Age | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Total | 25.1 | 66 | 34 | 190 |
| Under 6 years | 4.4 | 67 | 33 | 215 |
| 6-17 years | 6.8 | 71 | 29 | 216 |
| 18-21 years | 2.0 | 56 | 44 | 190 |
| 22-44 years | 5.3 | 60 | 40 | 189 |
| 45-64 years | 2.4 | 65 | 35 | 163 |
| 65 years or over | 4.2 | 68 | 32 | 143 |

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 10 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

substantially different from the overall mean length of enrollment for part-year enrollees of 190 days.

Family characteristics have been found to be among the most significant contributors to turnover in the welfare population (Bane and Ellwood, 1983). Table 2, which shows enrollment patterns for several family characteristics, provides insight into whether these characteristics also affect Medicaid enrollment.

During 1980, 11.7 million Medicaid recipients lived in male-headed families, which represented almost half of the Medicaid population. Female-headed families were enrolled part-year (28 percent) much less often than male-headed families (41 percent). Also, the presence of children in female-headed families influenced the probability of being enrolled part-year. Female-headed families with children were much less likely to be enrolled part of the year (26 percent). In contrast, the proportion enrolled part-year in male-headed families was not affected by the presence of children (41 percent with or without children). These results are displayed graphically in Figure 1.

The education of family head had an expected influence on enrollment patterns. As the level of education increased, part-year enrollment increased. Part-year enrollment increased from 31 percent for those people living in families where the head had not completed high school to 40 percent for those people living in families where the head had completed high school.

Mean length of enrollment for part-year enrollees did not vary substantially across any of the family characteristics displayed. Other reports in this series examine if these factors are related to whether an episode of enrollment will begin in the first place.

The relationship of income and enrollment is displayed in Table C and is the strongest of any relationship observed so far. In general, as family income increased, full-year Medicaid enrollment was less likely and mean length of enrollment dropped.

Income as examined in terms of its relation to the Federal poverty level, which adjusts for family size, showed a converse pattern. Only 22 percent of Medicaid enrollees in the lowest poverty level category (0-55 percent of poverty) were enrolled part-year. The tendency to be enrolled part-year increased as income relative to the poverty level increased. However, mean length of enrollment did not follow the same linear pattern. Mean length of enrollment for part-year enrollees was longest for people living in families with incomes at between 56-75 percent of the poverty level (235 days). At income increased beyond 100 percent of the poverty level, mean length of enrollment dropped.

Figure 1
Percent of persons enrolled full- and part-year
by sex of family head and presence of children:
Noninstitutionalized Medicaid population, United States, 1980

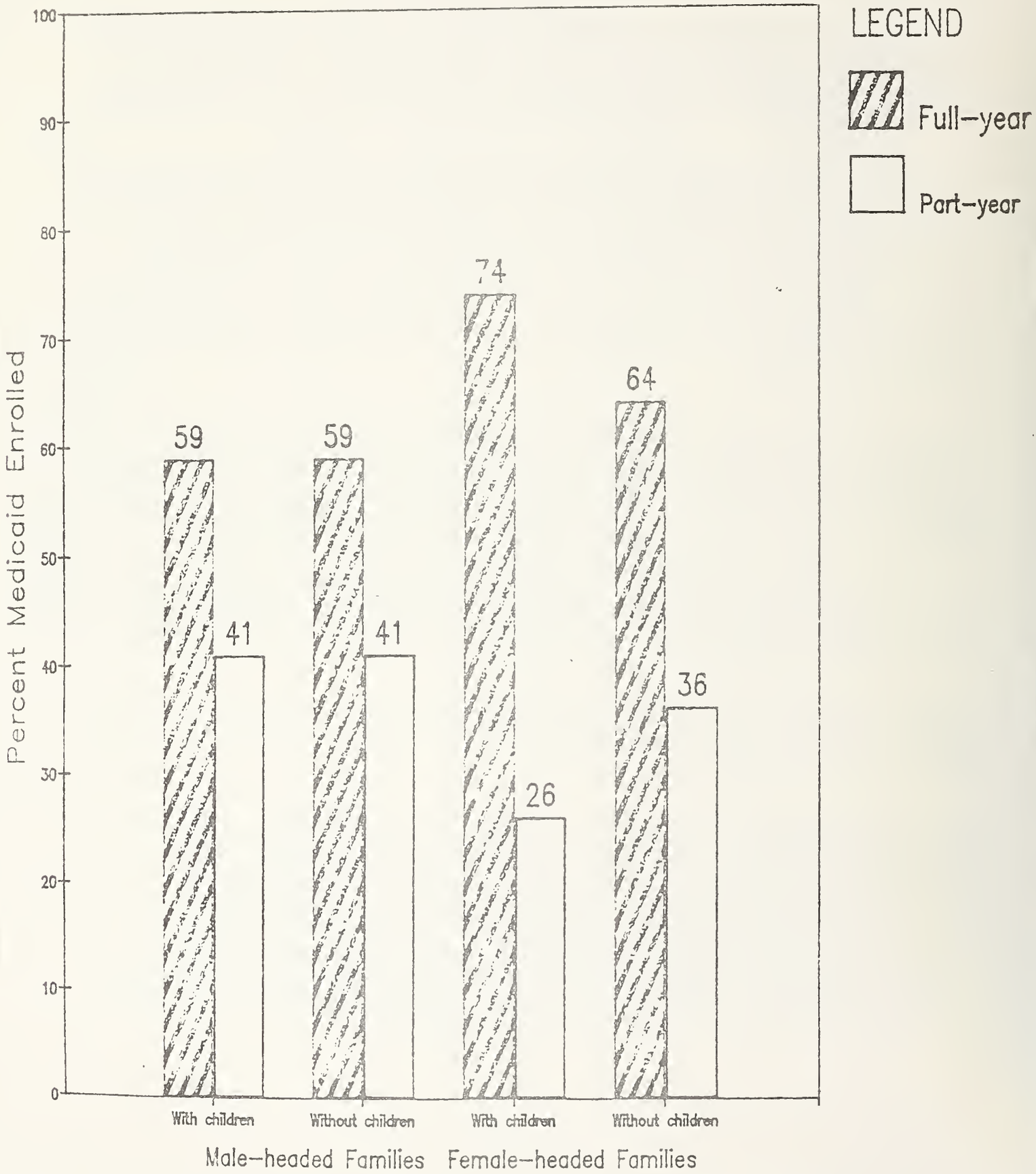


Table C

Percent distribution for persons ever enrolled full and part year and mean length of enrollment, by family income characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Age | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Family income | | | | |
| Total | 25.1 | 66 | 34 | 190 |
| $0-$2,999 | 2.8 | 70 | 30 | 191 |
| $3-$4,999 | 4.4 | 76 | 24 | 211 |
| $5-$6,999 | 4.2 | 73 | 27 | 211 |
| $7-$9,999 | 4.0 | 67 | 33 | 185 |
| $10-$14,999 | 3.7 | 51 | 49 | 183 |
| $15,000 or more | 6.0 | 59 | 41 | 179 |
| Percent of family income relative to poverty level | | | | |
| Total | 25.1 | 66 | 34 | 190 |
| 0-55 percent | 4.3 | 78 | 22 | 185 |
| 56-75 percent | 4.2 | 73 | 27 | 235 |
| 76-100 percent | 3.7 | 70 | 30 | 196 |
| 101-150 percent | 4.7 | 62 | 38 | 204 |
| 151-200 percent | 3.0 | 58 | 42 | 167 |
| Greater than 200 percent | 5.2 | 55 | 45 | 169 |

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 11 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

The NMCUES data were further examined to determine to what extent employment influenced turnover in enrollment. Table D displays the results.

As with income, employment had a marked effect on turnover patterns. A majority of Medicaid enrollees over 14 years of age were not in the labor force during 1980. These enrollees, together with those unemployed, represented over 11 million persons or 69 percent of enrollees over 14 years of age. Unemployed enrollees were more likely to be enrolled throughout all of 1980, particularly in comparison to employed enrollees. Only 40 percent of enrollees who worked full-time were enrolled in Medicaid all of the year compared to 68 percent of the unemployed.

Because Medicaid eligibility is linked to the public assistance system, Medicaid enrollees are enrolled under a variety of "aid categories" used to administer payments. Table E displays enrollment characteristics by aid category.

Enrollment patterns differed substantially across aid categories. A higher proportion of AFDC enrollees were enrolled part-year (33 percent) than were enrolled part-year for SSI enrollees (16 percent). This confirms the Tennessee Medicaid findings reported earlier. State-only and other noncash enrollees had the highest part-year enrollment (72 percent).

AFDC enrollees experienced the longest mean length of enrollment (210 days) for those enrolled only part of the year compared to the national mean. State-only and other noncash enrollees had the shortest enrollment episodes. When enrolled part-year, these enrollees averaged 147 days of enrollment.

The highest degree of turnover was exhibited by enrollees who did not report receiving welfare cash assistance. Almost two-thirds of noncash enrollees were enrolled part-year. This was over twice the proportion of cash enrollees who were enrolled part-year.

For those people who have short-term Medicaid enrollment, it is important to understand to what extent they were covered by other health insurance when not enrolled. Table F shows additional health insurance coverage for all Medicaid enrollees during 1980.

Of the 25 million people who received Medicaid during 1980, 13.2 million (53 percent) had some other form of health insurance (Medicare, private insurance, or other such as Veteran's Administration benefits) during the year. Those people who had private health insurance were the most likely to experience turnover in enrollment. Over half of those people with private insurance were enrolled part of the year. This was significantly higher than all other groupings. People who only had Medicaid during 1980 were the least likely to be enrolled part-year (26 percent) when compared to the national proportion of part-year enrollment.

Table D

Percent distribution for persons ever enrolled full and part year and mean length of enrollment, by employment characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Employment characteristics | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Total* | 16.2 | 63 | 37 | 177 |
| Total employed | 5.1 | 48 | 52 | 166 |
| Full time | 2.9 | 40 | 60 | 166 |
| Part time | 2.2 | 60 | 40 | 166 |
| Unemployed | 1.7 | 68 | 32 | 222 |
| Total not in labor force | 9.4 | 70 | 30 | 178 |
| Under 65 years | 5.8 | 70 | 30 | 200 |
| 65 years or over | 3.6 | 70 | 30 | 143 |

*Excludes persons under 14 years of age.

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 12 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table E

Percent distribution for persons ever enrolled full and part year and mean length of enrollment, by aid category: Noninstitutionalized Medicaid population, United States, 1980

| Aid category | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees, in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Total | 25.1 | 66 | 34 | 190 |
| Cash AFDC | 14.1 | 71 | 29 | 229 |
| Cash SSI | 4.6 | 89 | 11 | 215 |
| Cash State-only | - | 54 | 46 | 253 |
| Noncash AFDC | 2.0 | 38 | 62 | 148 |
| Noncash SSI | 1.1 | 66 | 34 | 153 |
| Other noncash* | 2.5 | 19 | 81 | 127 |
| Total | 25.1 | 66 | 34 | 190 |
| AFDC** | 16.1 | 67 | 33 | 210 |
| SSI** | 5.7 | 84 | 16 | 189 |
| All other | 3.3 | 28 | 72 | 147 |
| Total | 25.1 | 66 | 34 | 190 |
| Cash | 19.5 | 75 | 25 | 229 |
| Noncash | 5.6 | 35 | 65 | 136 |

\- Fewer than 20 cases or standard error greater than 30 percent.

* Other noncash refers to recipients whose specific aid category could not be identified. These could include AFDC, SSI, or State-only aid categories.

** Includes both cash and noncash recipients.

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 13 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table F

Percent distribution for persons ever enrolled full and part year and mean length of enrollment, by health insurance coverage: Noninstitutionalized Medicaid population, United States, 1980

| Health insurance coverage* | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| All enrollees | 25.1 | 66 | 34 | 190 |
| Medicaid only | 11.9 | 74 | 26 | 231 |
| Medicaid and Medicare | 5.3 | 69 | 31 | 144 |
| Medicaid and private | 6.2 | 47 | 53 | 172 |
| Medicaid and other | 1.7 | 63 | 37 | 206 |

*These categories are mutually exclusive in descending order. Refer to Appendix I, Definition of Terms.

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 14 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

People who had only Medicaid during 1980 had the longest part-year mean length of enrollment (231 days) compared to the national mean. People who had Medicare were enrolled for a shorter period, 144 days on the average, than people who had Medicaid only. This was consistent with estimates observed earlier for the average mean length of enrollment for persons 65 years of age or over (143 days, Table B).

Table 3 examines the insurance status of Medicaid enrollees when not Medicaid-enrolled by demographic characteristics. Of the 8.6 million Medicaid enrollees who were enrolled for only part of the year, 62 percent had some other form of health insurance when not enrolled. The remaining 38 percent were not insured when not Medicaid enrolled.

Insurance coverage of part-year children when not Medicaid enrolled was less common than for persons over age 65 during 1980. Only 49 percent of children under 6 years of age had insurance coverage, while not-enrolled compared to almost 100 percent of the elderly.

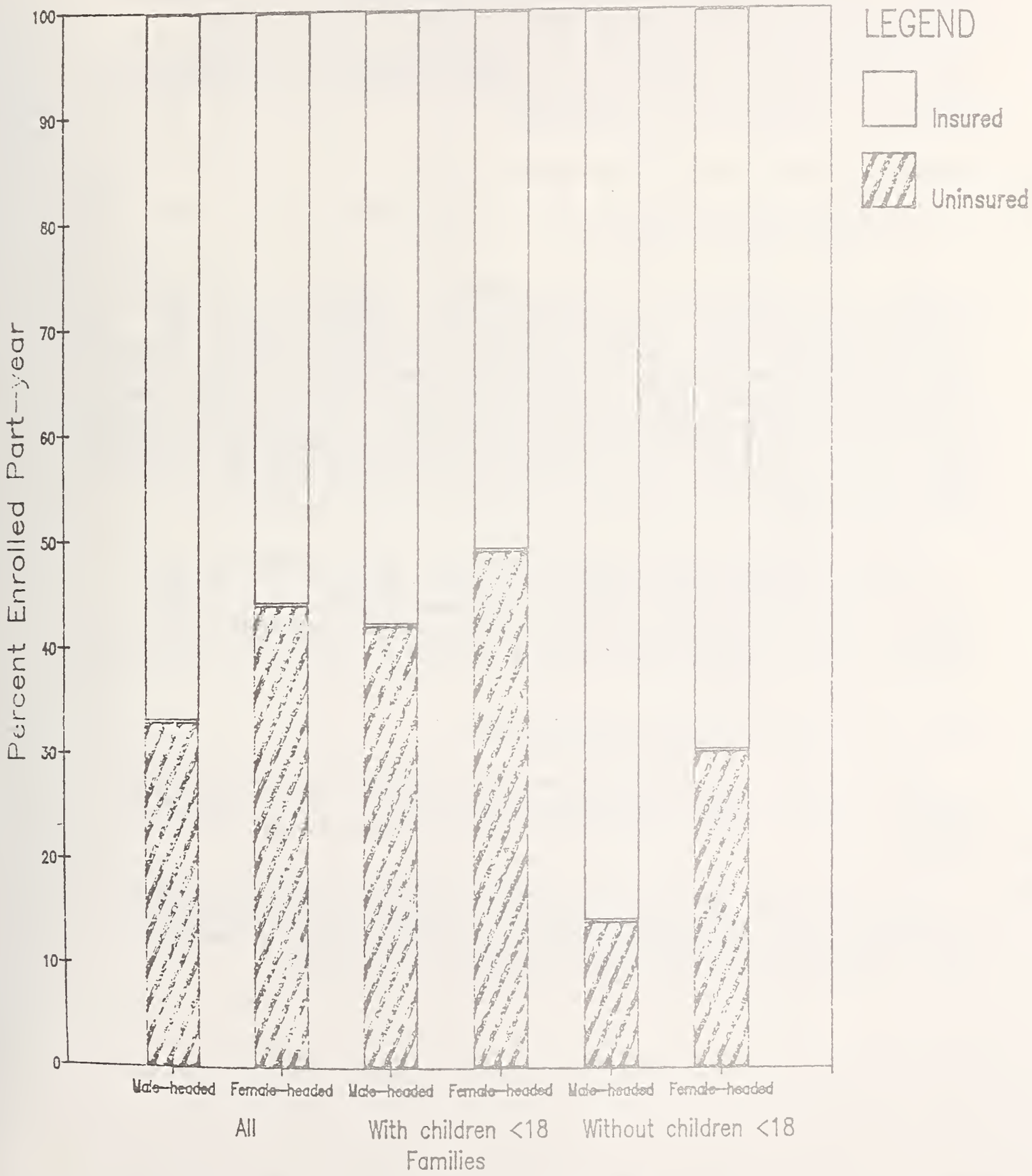
The insurance characteristics of part-year enrollees, while not Medicaid-enrolled, did not differ by sex or race. However, ethnicity did appear to be a factor. Hispanic people were more likely to be uninsured than non-Hispanic people.

There was variability by region in the degree to which Medicaid enrollees were or were not insured when not on Medicaid. Persons in the North Central region were insured most often. In contrast, over half of the people living in the West had no insurance when not Medicaid-enrolled.

Table 4 displays family characteristics by insurance status when not Medicaid enrolled.

About two-thirds of people in married families were insured when they were not Medicaid-enrolled (66 percent). Families headed by single heads who were never married were less likely to have other insurance (52 percent), although this difference was not significant. There were variations in health insurance coverage when the sex of the family head and presence of children were considered. Two-thirds of the people living in male-headed families had insurance when not-Medicaid-enrolled compared to only 56 percent of the people living in female-headed families. When children were present, the difference in the proportion of people with insurance when not-Medicaid-enrolled did not differ significantly by sex of household head. However, a large majority (79 percent) of all families without children had other insurance when they were not Medicaid enrolled. Further, persons in male-headed families without children were more likely to have insurance when not Medicaid-enrolled (86 percent) than were persons in female-headed families without children (70 percent). Since this group includes many elderly with Medicare coverage it is surprising that the difference by sex of family head is observed. Figure 2 displays these results graphically.

Figure 2
Percent persons ever enrolled part-year by insurance status when not enrolled by sex of family head and presence of children: Noninstitutionalized Medicaid population, United States, 1980



## Turnover and Health Status

Previous studies have shown that health status is associated with turnover in both welfare and Medicaid enrollment. Health status as measured by mean restricted activity days in 1980 is displayed in Table G. Each major aid category is displayed separately. Part-year enrollees had more restricted activity days (27 days) than full-year enrollees (21 days). Striking differences are observed for SSI enrollees. The mean number of restricted activity days reported by part-year SSI enrollees (79 days) was almost twice as many as full-year SSI enrollees (45 days). Differences for the AFDC population were less pronounced.

## Turnover and Hospital Service Utilization

The hospital service utilization of enrollees when enrolled and when not enrolled is examined in Table H.

The rate of hospital discharges for Medicaid enrollees in 1980 was 334 discharges per 1,000 enrollees. Discharge rates differed by aid category and by full-year and part-year enrollment status. Discharges per 1,000 were 554 discharges/1,000 enrollees, followed by State-only enrollees with 457 discharges/1,000 enrollees, but these differences were not significant. AFDC enrollees, however, did have significantly lower discharges per 1,000 (231/1,000) than either SSI or State-only enrollees. The rate of part-year enrollees (376 discharges/1,000 part-year enrollees) was not significantly higher than the rate for full-year enrollees (312 discharges/1,000 full-year enrollees). A majority of part-year discharges occurred during periods of Medicaid enrollment.

Table I examines rates of ambulatory visits. Total ambulatory visit rates were not significantly higher for part-year enrollees (7.2 visits) than full-year enrollees (6.6 visits). Part-year AFDC enrollees visited emergency rooms and outpatient departments more often than did full-year AFDC enrollees, as shown in Table 5 which presents a breakdown of ambulatory visits by type of provider.

## Turnover and Medicaid Program Characteristics

Each State has a great deal of latitude in the design of its Medicaid program. The first option that States have is whether to have a Medicaid program at all. In 1980, every State but Arizona chose to have a Medicaid program.

Once a State has opted to have a Medicaid program, there are a number of decisions to make regarding eligibility, covered services, reimbursement, and administration, although minimum Federal guidelines exist in these areas. Nevertheless, State Medicaid programs can vary widely.

Table G

Mean restricted activity days for persons ever enrolled: Noninstitutionalized Medicaid population, United States, 1980

| Aid category | All enrollees | Mean restricted activity days | |
|---|---|---|---|
| | | Full year | Part year |
| All enrollees | 23.1 | 20.8 | 27.4 |
| AFDC | 10.0 | 9.1 | 12.0 |
| SSI | 50.5 | 45.2 | 78.7 |
| All other | 39.0 | 31.2 | 42.0 |

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 15 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table H

Hospital discharges per 1,000 enrollees ever enrolled, by enrollment duration and aid category: Noninstitutionalized Medicaid population, United States, 1980

| Aid category | Per 1,000 enrollees | Per 1,000 full-time enrollees | Per 1,000 part-year enrollees | | |
|---|---|---|---|---|---|
| | | | Total | When enrolled | When not enrolled |
| All enrollees | 334 | 312 | 376 | 227 | 149 |
| AFDC | 231 | 220 | 252 | 168 | 84 |
| SSI | 554 | 549 | 580 | 249 | - |
| All other | 457 | - | 573 | 311 | 262 |

- Fewer than 20 cases or standard error greater than 30 percent.

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 16 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table I

Ambulatory visits per enrollee ever enrolled, by enrollment duration and aid category: Noninstitutionalized Medicaid population, United States, 1980

| Aid category | Per enrollee | Per full-year enrollee | Per part-year enrollee | | |
|---|---|---|---|---|---|
| | | | Total | When enrolled | When not enrolled |
| All enrollees | 6.8 | 6.6 | 7.2 | 4.3 | 2.9 |
| AFDC | 4.8 | 4.6 | 5.2 | 3.5 | 1.7 |
| SSI | 10.9 | 10.7 | 11.5 | 6.6 | 4.9 |
| All other | 9.4 | 8.2 | 9.8 | 5.0 | 4.8 |

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 17 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 6 examines several eligibility options that States have, some of which may affect turnover in enrollment. The most important option a State has is whether or not to cover the medically needy. Because eligibility for the medically needy is based on medical expenses relative to income, the population of potential eligibles is substantially increased when a State elects this option. States control the pool of medically needy eligibles through their medically needy income level and/or medically needy spend-down period. The spend-down period is the period of time (up to 6 months) during which medical expenses relative to income are considered for medically needy eligibility. In 1980, the spend-down period ranged from 1 month in North Dakota to 6 months in 20 States. The medically needy income level may be above or below the State's public assistance payment level. The relationship between the medically needy income level and payment level is known as the "medically needy band". If the medically needy income level is higher than the payment level, the band is positive, if it is lower, the band is negative.

Other eligibility options presented in Table 6 include coverage for unborn children, coverage for families with unemployed parents, and the inclusion of State-only programs under Medicaid. State-only programs receive no Federal funds except for administrative expenses, so their range of services covered and eligibility criteria are designed totally at the State's discretion.

The table shows that program characteristics had a mixed influence on turnover patterns. While more "generous" States, as measured by the presence of a medically needy program, unborn child coverage and/or unemployed parents coverage tended to have slightly more people enrolled part-year than did "restrictive" States, the differences were not statistically significant. However, the mean length of enrollment of part-year enrollees did differ significantly. States with unborn child coverage, unemployed parents coverage, and State-only programs had significantly longer episodes of part-year enrollment than did States without these eligibility options. These classes of enrollees, then, seemed to require assistance longer than other classes of part-year enrollees. The presence of a medically needy program did not have a significant effect on mean length of part-year enrollment.

## DISCUSSION

In 1980, over 11 percent of the noninstitutionalized population in the United States was enrolled in Medicaid. For a program that serves such a large group of people, surprisingly little is known about Medicaid enrollment patterns on a national level. This report has presented some initial insights about turnover in Medicaid enrollment.

In 1980, two-thirds of Medicaid enrollees were enrolled throughout the year and one-third were enrolled for only part of the year. These part-year enrollees more often lived in families without children and were in poorer health than the full-year Medicaid population. Many other characteristics showed a relationship to turnover in enrollment; the most important ones were family income and employment status. These patterns in turnover were consistent with those that have been observed in welfare turnover. The rates of utilization of hospital and ambulatory care for part-year Medicaid enrollees were not significantly higher. A majority (but not all) of their care occurred during the periods of the year in which they were Medicaid eligible.

Almost two-thirds (62 percent) of the persons who were enrolled in Medicaid for part of the year had some other form of health insurance during the period in which they were not enrolled (Table 3). Much of this additional coverage comes from Medicare for the elderly and disabled, but private insurance and other forms of coverage are also important to low-income persons who are no longer enrolled in Medicaid.

State eligibility options also affect the amount of turnover in Medicaid enrollment. More "generous" States with respect to eligibility options did not have more turnover, but experienced longer periods of enrollment for part-year enrollees. The Omnibus Budget Reconciliation Act allows more flexibility in eligibility criteria than was previously permitted. Since the NMCUES data suggest that the turnover population use more health services while enrolled, States may be cautious in adding additional short-term enrollment groups.

A distinct limitation of the NMCUES data for studying turnover is the short-term nature of the data base which was used. Welfare studies have shown that many persons have enrollment of several years. The "Tape-to-Tape" project being undertaken by the Health Care Financing Administration will generate data particularly well-suited for the study of long-term Medicaid enrollment. Data on Medicaid enrollment spanning several years are being collected and analyzed in that project. Those results will provide additional insights into long-term Medicaid turnover patterns.

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DETAILED TABLES

Table 1

Percent distribution for persons ever enrolled full and part year and mean length of enrollment, by selected demographic characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Select demographic characteristics | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Total | 25.1 | 66 | 34 | 190 |
| Sex | | | | |
| Male | 10.1 | 64 | 36 | 197 |
| Female | 15.0 | 67 | 33 | 185 |
| Race | | | | |
| White | 16.5 | 62 | 38 | 191 |
| Nonwhite | 8.6 | 74 | 26 | 186 |
| Ethnicity | | | | |
| Non-Hispanic | 22.3 | 65 | 35 | 187 |
| Hispanic | 2.8 | 70 | 30 | 218 |
| Region | | | | |
| Northeast | 5.5 | 69 | 31 | 226 |
| North Central | 5.8 | 60 | 40 | 183 |
| South | 6.6 | 70 | 30 | 143 |
| West | 7.2 | 64 | 36 | 209 |

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 18 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 2

Percent distribution for persons ever enrolled full and part year and mean length of enrollment, by selected family characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Selected family characteristics | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Sex of family head | | | | |
| All families | 25.1 | 66 | 34 | 190 |
| Male headed | 11.7 | 59 | 41 | 185 |
| Female headed | 13.4 | 72 | 28 | 196 |
| All families with children under 18 years | 18.4 | 67 | 33 | 203 |
| Male headed | 8.1 | 59 | 41 | 193 |
| Female headed | 10.3 | 74 | 26 | 216 |
| All families with no children under 18 years | 6.7 | 61 | 39 | 159 |
| Male headed | 3.6 | 59 | 41 | 167 |
| Female headed | 3.1 | 64 | 36 | 149 |
| Family size | | | | |
| All families | 25.1 | 66 | 34 | 190 |
| 2 or less children | 15.3 | 64 | 36 | 170 |
| 3-4 children | 6.7 | 66 | 34 | 208 |
| More than 4 children | 3.1 | 76 | 24 | 218 |
| Education of family head | | | | |

(continued)

Table 2 (continued)

Percent distribution for persons ever enrolled full and part year and mean length of enrollment, by selected family characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Selected family characteristics | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| All families* | 25.0 | 66 | 34 | 190 |
| Less than grade 8 | 4.9 | 73 | 27 | 192 |
| Completed grade 8 | 2.2 | 70 | 30 | 180 |
| Some high school | 7.4 | 69 | 31 | 194 |
| High school graduate | 7.5 | 60 | 40 | 187 |
| College or above | 3.0 | 58 | 42 | 192 |
| Marital status or family head | | | | |
| All families* | 25.0 | 66 | 34 | 190 |
| Never married | 3.5 | 69 | 31 | 188 |
| Formerly married | 11.3 | 70 | 30 | 201 |
| Married | 10.3 | 60 | 40 | 181 |

*Excludes family heads under 17 years of age.

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 19 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 3

Percent distribution for persons ever enrolled part year by selected demographic characteristics, by health insurance coverage status when not enrolled: Noninstitutionalized Medicaid population, United States, 1980

| Selected demographic characteristics | All part-year enrollees, millions | Percent distribution | |
|---|---|---|---|
| | | Insured when not Medicaid enrolled | Uninsured when not Medicaid enrolled |
| Total | 8.6 | 62 | 38 |
| Age | | | |
| Under 6 years | 1.4 | 49 | 51 |
| 6-17 years | 2.0 | 55 | 45 |
| 18-21 years | 0.9 | 51 | 49 |
| 22-44 years | 2.1 | 60 | 40 |
| 45-64 years | 0.8 | 61 | 39 |
| 65 years or over | 1.3 | 100 | + |
| Sex | | | |
| Male | 3.7 | 62 | 38 |
| Female | 4.9 | 62 | 38 |
| Race | | | |
| White | 6.3 | 63 | 37 |
| Nonwhite | 2.3 | 60 | 40 |
| Ethnicity | | | |
| Non-Hispanic | 7.8 | 65 | 35 |
| Hispanic | 0.8 | 41 | 59 |
| Region | | | |
| Northeast | 1.7 | 64 | 36 |
| North Central | 2.3 | 70 | 30 |
| South | 2.0 | 69 | 31 |
| West | 2.6 | 49 | 51 |

+ Not applicable.

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 20 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 4

Percent distribution for persons ever enrolled part year by selected family characteristics, by health insurance coverage status when not enrolled: Noninstitutionalized Medicaid population, United States, 1980

| Selected family characteristics | All part-year enrollees, millions | Percent distribution | |
|---|---|---|---|
| | | Insured when not Medicaid enrolled | Uninsured when not Medicaid enrolled |
| Employment | | | |
| Total* | 6.0 | 66 | 34 |
| Total employed | 2.6 | 62 | 38 |
| Full time | 1.7 | 62 | 38 |
| Part time | 0.9 | 61 | 39 |
| Unemployed | 0.5 | 50 | 50 |
| Total not in labor force | 2.8 | 74 | 26 |
| Under 65 years | 1.7 | 58 | 42 |
| 65 years or over | 1.1 | 100 | + |
| Percent of family income relative to poverty level | | | |
| Total | 8.6 | 62 | 38 |
| 0-55 percent | 1.0 | 56 | 44 |
| 56-75 percent | 1.1 | 41 | 59 |
| 76-100 percent | 1.1 | 59 | 41 |
| 101-150 percent | 1.8 | 70 | 30 |
| 151-200 percent | 1.2 | 59 | 41 |
| Greater than 200 percent | 2.4 | 72 | 28 |

*Excludes persons under 14 years of age.

(continued

Table 4 (continued)

Percent distribution for persons ever enrolled part year by selected family characteristics, by health insurance coverage status when not enrolled: Noninstitutionalized Medicaid population, United States, 1980

| Selected family characteristics | All part-year enrollees, millions | Percent distribution | |
|---|---|---|---|
| | | Insured when not Medicaid enrolled | Uninsured when not Medicaid enrolled |
| Sex of family head | | | |
| Total* | 8.6 | 62 | 38 |
| Male headed | 4.8 | 67 | 33 |
| Female headed | 3.8 | 56 | 44 |
| All families with children under 18 years | 6.0 | 55 | 45 |
| Male headed | 3.4 | 58 | 42 |
| Female headed | 2.7 | 51 | 49 |
| All families with no children under 18 years | 2.6 | 79 | 21 |
| Male headed | 1.5 | 86 | - |
| Female headed | 1.1 | 70 | 30 |
| Marital status of family head | | | |
| Total** | 8.6 | 64 | 36 |
| Never married | 1.1 | 53 | 47 |
| Formerly married | 3.4 | 62 | 38 |
| Married | 4.1 | 68 | 32 |

- Not applicable.
* Excludes persons under 14 years of age.
** Excludes family heads under 17 years of age.

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 21 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 5

Selected ambulatory visits per enrollee ever enrolled, by enrollment duration and aid category: Noninstitutionalized Medicaid population, United States, 1980

| Aid category and type of service | Visits per enrollee | Visits per full-year enrollee | Total | Visits per part-year enrollee | |
|---|---|---|---|---|---|
| | | | | When enrolled | When not enrolled |
| All enrollees | | | | | |
| Emergency room | 0.5 | 0.5 | 0.6 | 0.3 | 0.2 |
| Hospital out-patient | 0.9 | 0.9 | 1.0 | 0.6 | 0.4 |
| Physician | 4.1 | 3.9 | 4.4 | 2.7 | 1.7 |
| Other provider | 1.3 | 1.3 | 1.3 | 0.7 | 0.6 |
| Total ambulatory | 6.8 | 6.6 | 7.2 | 4.3 | 2.9 |
| AFDC | | | | | |
| Emergency room | 0.5 | 0.4 | 0.6 | 0.4 | 0.2 |
| Hospital out-patient | 0.6 | 0.5 | 0.8 | 0.5 | 0.3 |
| Physician | 2.9 | 2.9 | 3.0 | 2.0 | 1.0 |
| Other provider | 0.8 | 0.7 | 0.9 | 0.6 | - |
| Total ambulatory | 4.8 | 4.6 | 5.2 | 3.5 | 1.7 |
| SSI | | | | | |
| Emergency room | 0.5 | 0.6 | 0.4 | 0.2 | 0.2 |
| Hospital out-patient | 1.4 | 1.4 | - | - | - |
| Physician | 6.4 | 6.2 | 7.6 | 4.7 | 2.9 |
| Other provider | 2.5 | 2.6 | - | - | - |
| Total ambulatory | 10.9 | 10.7 | 11.5 | 6.6 | 4.9 |
| All other | | | | | |
| Emergency room | 0.6 | 0.4 | 0.6 | 0.3 | 0.3 |
| Hospital out-patient | 1.4 | - | 1.2 | 0.6 | 0.6 |
| Physician | 5.7 | 4.4 | 6.2 | 3.4 | 2.8 |
| Other provider | 1.7 | - | 1.8 | - | 1.1 |
| Total ambulatory | 9.4 | 8.2 | 9.8 | 5.0 | 4.8 |

- Fewer than 20 cases or standard error greater than 30 percent.

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 22 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 6

Percent distribution for persons ever enrolled full and part year and mean length of enrollment, by selected Medicaid program characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Program characteristics | Number of States | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|---|
| | | | Full year | Part year | |
| Total* | 50 | 24.7 | 66 | 34 | 191 |
| States without medically needy programs | 20 | 5.7 | 70 | 30 | 181 |
| States with medically needy programs | 30 | 19.0 | 65 | 35 | 193 |
| Spend-down period, 1-3 months | 9 | 7.3 | 65 | 35 | 208 |
| Spend-down period, 3-6 months | 21 | 11.7 | 64 | 36 | 184 |
| Positive medically needy band | 22 | 4.2 | 61 | 39 | 210 |
| Negative medically needy band | 8 | 14.9 | 66 | 34 | 188 |
| States with unborn child coverage | 37 | 19.3 | 65 | 35 | 200 |
| States without unborn child coverage | 13 | 5.4 | 71 | 29 | 153 |

* Some of the persons included as Medicaid State-only enrollees in previous tables are excluded here.

(continued)

Table 6 (continued)

Percent distribution for persons ever enrolled full and part year and mean length of enrollment, by selected Medicaid program characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Program characteristics | Number of States | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|---|
| | | | Full year | Part year | |
| States with unemployed parents coverage | 27 | 18.3 | 65 | 35 | 205 |
| States without unemployed parents coverage | 23 | 6.4 | 70 | 30 | 143 |
| States with State-only programs** | 36 | 3.2 | 69 | 31 | 198 |
| States without State-only programs*** | 12 | 21.3 | 66 | 34 | 136 |

** Includes District of Columbia. Does not include Arizona, Puerto Rico, or territories.

*** Information on the presence of State-only programs was missing for two States.

NOTE: The relative standard error (RSE) estimates in this table are presented in Table 23 in Appendix IV. The precision of a statistic with an RSE of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

# APPENDIX I

## DEFINITION OF TERMS

## APPENDIX I

## DEFINITION OF TERMS

### Terms Relating to Medicaid Enrollment

Persons ever enrolled--These are all persons who have either reported in at least one survey round that they were Medicaid-enrolled, or for whom Medicaid enrollment was verified by administrative records, or who were logically imputed to be Medicaid-eligible for any portion of the year.

Full-year enrollees--These are people who were eligible for Medicaid and reported Medicaid eligibility on all days they were a member of the civilian noninstitutionalized population in 1980.

Part-year enrollees--These are people who were eligible for Medicaid and reported Medicaid eligibility for fewer days than they were a member of the civilian noninstitutionalized population in 1980.

Mean length of enrollment--This was calculated by dividing the sum of the number of days in each observed enrollment spell by the total number of persons ever enrolled. Dates of enrollment were assigned to each person during the best-estimation process based on information from administrative records and respondent-reported data. This best-estimation process is documented in: Whitmore, Roy: Medicare and Medicaid Best Estimates for the National Medical Care Utilization and Expenditure Survey.

Aid category--Aid categories are eligibility classifications assigned to Medicaid enrollees when they become enrolled in Medicaid. When Medicaid enrollment was verified through administrative records for a person, that person was assigned to the aid category under which they were enrolled at the beginning of the survey. These aid categories are:

- AFDC - Aid to Families with Dependent Children.
- SSI - Supplemental Security Income, which includes aid to the aged, blind, and disabled.
- State-only.

Cash/noncash status--Cash status refers to whether a Medicaid enrollee reported receiving a cash grant from the public assistance program. Cash means that the enrollees reported receiving cash assistance. Noncash means that the enrollee did not report receiving public assistance.

Medically needy--States may provide Medicaid coverage to individuals whose income is up to 133 1/3 percent of the State's welfare payment level

and/or to individuals who incur medical expenses that reduce their income to below 133 1/3 percent of the payment level. States determine the payment levels and the percent of the payment level that is applied. The medically needy band is the degree to which the medically needy income level is above the payment level (positive) or below the payment level (negative).

Spend-down period--This is the period of time (up to 6 months) during which medical expenses, as a proportion of income, are considered for medically needy eligibility. The spend-down period ranges from 1 month in North Dakota to 6 months in 20 States.

Unborn child coverage--This is an optional aid category extending Medicaid coverage to unborn children. Eligibility under this option can begin at various times during the pregnancy at the State's discretion.

Unemployed parents coverage--This is an optional aid category extending Medicaid coverage to unemployed parents.

State-only program--This is the component of a State Medicaid program that is designed by the State and is not subject to Federal guidelines because it is funded totally with State and local funds, except for administrative costs that the Federal government shares.

Terms Relating to Health Insurance

Health insurance is any entity other than the provider, patient, or patient's family that assumes at least part of the financial responsibility for care. Insurance coverage groups were categorized to be mutually exclusive and include the following:

- Medicaid only--These are people who had only Medicaid coverage during the survey period.

- Medicaid and Medicare--These are people who had Medicaid and Medicare either concurrently or serially during the survey period. If people reported having private insurance in addition to Medicaid and Medicare they were included here.

- Medicaid and private insurance--These are people who had Medicaid and private insurance during the survey period. Private insurance includes commerical insurance, Blue Cross and Blue Shield plans, health maintenance organizations, union- and employer-sponsored insurance programs, and other prepayment programs. It does not include company, union or school clinics, or infirmaries. If people reported having other coverage in addition to Medicaid and private insurance, they were included here.

- Medicaid and other--These are people who had Medicaid and other insurance coverage during the survey period. Other coverage includes local, State, and Federal programs that pay for health services or provide services at no charge. These include CHAMPUS, CHAMPVA, the Indian Health Service, Title V Crippled Children's and Maternal and Child Health programs, local welfare programs or public health department services, and local philanthrophy, although the latter is not publicly financed. This category also includes employees of State and local governments who named the governmental entity for which they work as their source of coverage or payment.

Terms Relating to Health Services

Hospital stays--Any stays in short-stay, acute-care hosptials.

Ambulatory visits--Any visits to the following types of providers:

- Hospital emergency rooms.
- Hospital outpatient departments.
- Physician office services provided by a doctor of medicine (M.D.) or doctor of osteopathy (D.O.) in the physician's office, or patient's home, or other settings. Not included are physician services provided in an emergency room, a hospital outpatient department, or during an in-patient hospital stay. Included are services of other practitioners working directly under the supervision of physicians.
- Other medical provider services including optometrists, psychologists, psychiatric social workers or any other mental health workers, podiatrists, chiropractors, physical therapists, nurses, nurse practitioners, paramedics, home health aides, or physician assistants when such care is not provided under the direct supervision of a physician. A contact with these providers can occur in the provider's office, a patient's home, or other medical setting. Services provided in hospital emergency rooms, in outpatient departments, or during in-patient hospital stays are not included.

Terms Relating to Characteristics of People

Age--This refers to the age of the person as of July 1, 1980. Babies born during the survey period were included in the category "under 6 years of age."

Sex--The gender of the person was recorded by the interviewer as observed.

Race--Each person was classified as "white," or "nonwhite." The "other" race category includes black, American Indian, Alaskan Native, Asian, and Pacific Islander. The race of persons 17 years of age or over was reported by the household respondent; the race of children under 17 years of age was derived from the race of the wife of the head of household (if there was one) or the head of household.

Ethnicity--Each person's ethnicity was classified as Hispanic if one of the following groups was identified as his or her main national origin or ancestry: Puerto Rican, Cuban, Mexican, Mexican-American, Chicano, other Latin American, or other Spanish. Data on ethnicity were collected and classified separately from data on race.

Region--Regions correspond to those used by the U.S. Bureau of the Census and are as follows:

- Northeast--Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

- North Central--Michigan, Wisconsin, Ohio, Indiana, Illinois, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.

- South--Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas.

- West--Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, and Hawaii.

Employment--A person's employment status was derived from the number of weeks and hours worked, for people 14 years of age or over. If persons worked more than 35 hours a week they were classified as employed full-time. This includes persons who worked full-time for part of the survey period. If persons worked 35 hours or less a week, they were classified as part-time. This included people who worked part-time for part of the year. If persons did not work at all during the entire survey period, they were classified as unemployed if they reported that they had looked for work in at least one survey round or that they were not in labor force, if they had never reported looking for work.

Family-A family is a group of people related by blood, residing together in the same structure. People were assigned to the family in which they spent the most time during the survey.

Family head--The person assuming financial and legal responsibility for the other members of the family. This was recorded by the interviewer as reported by the family. Characteristics of family head are arrayed for the person who remained the head for the longest period during the survey. Characteristics of family heads include:

- Sex.

- Educational status: The number of years of formal schooling completed as of July 1, 1980.

- Marital status: Single means never married; formally married means widowed, separated and divorced; married means legally married at the time of the first interview.

Persons living in families where the head was under 17 years of age are excluded from analyses that use educational status and marital status.

Annual family income--The amount of personal income from all sources in 1980, including cash transfer payments, collected for each respondent who was 14 years of age or over. Since persons could change families during the course of the 1-year reference period, their annual income was prorated to each of person's families in proportion to the amount of time that the person was in each family. Family income was then defined as the sum of the proportions of personal income contributed by each family member. Unrelated individuals were classified according to their own income. To account for families that existed for only a portion of 1980, annual family income was produced by dividing family income by the proportion of the year that the family existed. This report classifies persons by the annual family income of the family of which they were a member for the longest period of time during 1980.

Poverty level--The definition of poverty level income follows that of the U.S. Bureau of the Census, using the 1980 nonfarm levels from CPS P-60, Table No. 127. This definition accounts for the age and sex of the family head and the size of the family. For the purposes of this report, income groups were defined as follows in relation to poverty level:

- 0-55 percent of poverty level.

- 56-75 percent of poverty level.

- 76-100 percent of poverty level.

- 101-150 percent of poverty level.

- 151-200 percent of poverty level.

- 200 percent or more of poverty level.

These categories were created by using household family income as defined above.

Mean restricted activity days--These are self-reported days in which the respondent either: remained in bed for more than one-half day due to

illness or injury, was absent from work for more than one-half day due to illness or injury, or cut down on his/her activity due to illness or injury. Restricted activity days were computed by adding together the number of bed disability days, work-loss days and cut-down days and subtracting out the number of work-loss days spent in bed to remove any duplication of days.

# APPENDIX II

# STATISTICAL DESIGN

## APPENDIX II

## STATISTICAL DESIGN

The National Medical Care Utilization and Expenditure Survey comprised two separate sample survey components that used identical data collection instruments and methods. These two survey components are the National Household Survey (HHS) and the State Medicaid Household Survey (SMHS). HHS employed a multistage probability sample of the civilian noninstitutionalized population of the United States. SMHS employed multistage probability samples of households that contained a Medicaid-eligible person in the States of California, Michigan, New York, or Texas.

The HHS sample was obtained by combining the national general purpose area samples of the Research Triangle Institute and the National Opinion Research Center. The structure of these samples is similar and will be described in aggregate. The first-stage sample consists of 135 primary sampling units (covering 108 geographic areas) which are counties, parts of counties, or groups of contiguous counties. The second-stage sample consists of 809 sampling units which are Census enumeration districts or block groups. The third-stage sample comprises 809 smaller area segments. Ultimately, a sample of approximately 6,600 households responded to the further-stage sample. This yielded a probability sample of about 17,900 people.

To provide a coordinated set of samples for SMHS, clustered list samples of Medicaid families, or "cases" were drawn from the November 1979 Medicaid eligibility files for each of the four States. The samples were clustered using the five-digit zip codes contained in the address field of the eligibility records. A total of 100 primary zip code area sampling units were selected in each State. A sample of approximately 4,900 Medicaid households containing about 13,700 people responded. Individual State samples were balanced (stratified proportionately) in their distribution over the categories of eligibility (Aid to Families With Dependent Children, Aged, Blind and Disabled, and State-only[3]).

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[3]Texas did not have a State-only program during 1980.

# APPENDIX III

# WEIGHTING AND IMPUTATION

## APPENDIX III

## WEIGHTING AND IMPUTATION

### Weights

The individuals eligible for inclusion in the NMCUES samples were the civilian, noninstitutionalized residents of the initial sample of housing units or Medicaid cases. Data from these initially eligible ("key") individuals were to be collected only for the time periods in which they were eligible; that is, data were gathered for the period of time in 1980 in which they were civilian and noninstitutionalized residents of the United States. Children born to key sample individuals during 1980 were eligible from their time of birth, and eligible individuals who died were considered eligible until their times of death. Further, individuals who were ineligible for inclusion in NMCUES in the first round but later returned to a sample Reporting Unit from the military, from an institution, or from foreign residence were included as key individuals from the date of their return. Sample persons were designated as survey respondents if they provided data for one-third or more of the days for which they were survey-eligible during 1980.

For the interpretation of NUMCUES data, adjusted sampling weights are needed to reflect the complex sample design that was used in the collection of the data. These weights may be viewed as inflation factors to account for the number of persons in the target population that the associated sample persons represent. The weights have been adjusted for the potential biasing effects of systematic nonsampling errors related to total survey nonresponse and sampling frame undercoverage. Nonresponse occurs when an individual refuses to participate in the survey. Undercoverage occurs when the units comprising the sampling frame do not provide access to all of the eligible target population members.

The NMCUES HHS sample initially identified a set of sample households. Data collection was then attempted for all eligible persons within each sample household. Thus, undercoverage and nonresponse can occur for an entire household or for individuals within a household. For this reason, a two-step weight-adjustment process was adopted. The first step resulted in adjusted household-level weights. The person-level weights were then derived from the adjusted household weights.

The initial weight associated with each household was the inverse of its sample selection probability. The weights of the responding household were then ratio-adjusted to 1980 Current Population Survey estimates of the number of eligible household equivalents in the United States for subgroups defined by race, sex, and age of the household head and by the number of

persons in the household. This provided a combined adjustment for both nonresponse and undercoverage of households. Since all eligible persons in a household were taken into the sample, the adjusted weight for a sample person's household provided the initial person-level weight for each individual. The initial weights of the responding persons were ratio-adjusted to estimates of the size of the eligible population in 1980 obtained from the U.S. Bureau of the Census 1980 Decennial Census Estimates for subgroups defined by age, race, and sex.

Imputation

During the course of the 1-year data collection period, some attrition of the initial sample took place. This occurred when sample members who responded to the first round of interviewing did not participate in subsequent rounds. When an individual fails to respond for the entire year, health care utilization data are missing for the nonresponding time period. To compensate for this source of bias, data were imputed to part-year respondents for the portion of the year they did not respond. The data were taken from full-year respondents with similar characteristics. Overall, attrition affected about 5 percent of the originally responding sample members.

Missing questionnaire items were either imputed logically or statistically. Logical imputation was used whenever other data gave a good indication of the appropriate response. For example, missing racial classifications were inferred from other household members. Statistical imputation was used to complete missing items that could not be logically inferred. Generally, an item was statistically imputed by assigning a value from a responding person with similar characteristics to those of the nonrespondent. Table 7 presents the percent of imputed data for some important variables.

Also, 12 sources of income were collected (employment, veterans' payments, unemployment, Workman's Compensation, SSI, Social Security, public assistance, pension, car payments, interest, dividends, and other). Total income was defined as the sum of the 12 sources. Employment income was logically imputed for 2.1 percent and statistically imputed for 9.4 percent of the sample members. All 12 income sources were reported by 63.8 percent of the sample members and 87.4 percent had no more than one source imputed.

Disability days and employment history were collected separately for each round of interviewing. These variables were imputed only for the portion of the year for which they were missing. Table 8 presents the percent of sample persons with complete data for the year for these variables.

Table 7

Percent of data imputed for several variables
(HHS and SMHS combined)

| Variable | Percent imputed |
|---|---|
| Age | 0.2 |
| Sex | 0.5 |
| Race | 22.3 |
| Hispanic origin | 2.5 |
| Education | 1.5 |
| Functional limitation score | 5.8 |
| Perceived health status | 1.4 |
| Nights in hospital | 6.7 |
| Charges (HHS only) | |
| Emergency room | 39.0 |
| Outpatient department | 51.0 |
| MD/DO | 22.0 |
| Hospital inpatient | 37.0 |
| MD/DO inpatient | 24.0 |
| Dental | 14.0 |
| Prescribed medicine and other medical expenses | 20.0 |

Table 8

Percent of persons with complete data for disability day and employment variables (HHS and SMHS combined)

| Variable | Percent with complete data |
|---|---|
| Employment | |
| Total weeks worked | |
| Main job | 12.6 |
| Second job | 17.6 |
| Hours worked per week | |
| Main job | 14.0 |
| Second job | 18.5 |
| Disability days | |
| Bed days | 16.1 |
| Cut-down days | 16.8 |
| Work-loss days | 15.6 |
| Work-loss days spent in bed | 18.6 |

Health insurance is used in this report as a generic term for all types of insurance, prepayment, and tax-supported programs in which a private or public program receives prepayment or reimburses providers for services delivered to persons covered by the program. Data concerning health insurance coverage were collected in several ways. Respondents were asked if they were covered at the time of the interview by each of several kinds of insurance. Sources of payment for each reported use of service were also collected. Information on employment, income, age, and participation in income redistribution programs, which are all highly related to insurance coverage, was collected and used to infer some kinds of coverage. Lastly, Medicare and Medicaid claims and eligibility data were collected during the Administrative Records Survey (ARS) component of NMCUES.

Four categories of coverage were created from the NMCUES and ARS data. These are (along with their constituent parts):

- Private health insurance.
  - commercial/independent insurers.
  - Blue Cross/Blue Shield.
  - HMO.
  - other prepaid health plans.
  - union name.
  - school name.
  - insurance, not otherwise specified.
- Medicare.
- Medicaid.
- Other public programs.
  - CHAMPUS/CHAMPVA.
  - Veterans' Administration.
  - Indian Health Service.
  - Federal government.
  - military.

- State/local government.

- public assistance, not otherwise specified.

Coverage by private health insurance and other public programs were determined from respondent data, while coverage by Medicare and Medicaid were determined using both respondent and ARS data.

Respondents were initially classified as covered by each of the two broad categories of private health insurance and other public programs at sometime during 1980 based on their answers to questions concerning coverage. Individuals who gave two or more indications in the utilization data that plans in either category were a source of payment were also classified as covered by that category at sometime during the year. Those individuals who were classified as ever covered in 1980 by either of private health insurance or other public programs were then assigned dates of coverage by the categories and their constituent plans. The insurance coverage as reported by the respondent on the date of an interview was ascribed to the respondent's entire reference period for the interview. The reference period extended from the date of the respondent's previous interview (or January 1, 1980) to the date of the current interview (or December 31, 1980). Persons who reported one of the insurance plans as a source of payment for a utilization were considered covered by that type of insurance for the entire reference period of the interview during which the utilization occurred. Persons classified as being covered by a plan in two reference periods immediately bracketing a reference period in which the plan was not reported were classified as covered by the plan during the intervening reference period. Insurance coverage was extrapolated forward for the remainder of a person's survey eligibility period if the person stopped responding prior to the end of the survey year.

The ARS data and the NMCUES data were used concurrently to classify persons as covered or not covered by Medicaid and Medicare and to establish dates of eligibility. The individuals who satisfied one or more of these criteria were classified as Medicaid enrollees:

- Persons with one or more periods of eligibility during 1980 in the Medicaid administrative records obtained from the States.

- Persons with one or more Medicaid claims with a positive Medicaid payment.

- Persons whose 1980 personal income did not exceed $20,000, and who were not covered by private insurance for all of 1980 and satisfied at least one of the following conditions:

  - had a Part B Buy-In in the Medicare Master Identification File obtained from HCFA.

- reported Supplemental Security Income (SSI), or Aid to Families With Dependent Children (AFDC) as a source of income during 1980.

- was under 21 years of age and lived with a person who reported AFDC.

- reported Medicaid coverage in two or more rounds and provided a (valid or invalid) Medicaid ID number in two or more rounds.

- reported Medicaid coverage or a Medicaid ID number in at least one round or reported Medicaid as a source of payment for at least one utilization and satisfied conditions determined by family income, personal income, age, education, and disability.

Medicaid eligibility periods were taken from the States' administrative records for persons with data there. Additional periods of eligibility were determined by examining respondent-reported coverage for Medicaid recipients who moved from one State to another during 1980. If such a person reported Medicaid coverage or had a utilization with Medicaid as a source, and the interview date fell outside of the previously defined eligibility period, then the additional days determined by the reference period for that interview were classified as periods of Medicaid eligibility. Persons under 21 years of age who were classified as Medicaid-covered only because they were living with an individual who reported AFDC income received the same eligibility periods as had been defined for that individual.

Individuals satisfying one or more of these criteria were classified as Medicare enrollees:

- Persons with at least one period of eligibility in the Medicare Master Identification File.

- Persons having at least one Medicare claim with a positive Medicare payment.

- Persons having at least one Medicaid claim with a positive Medicare payment.

- Persons identified as a Medicare enrollee on a least one Medicaid claim.

- Persons identified as a Medicare Buy-In in the Medicaid administrative records obtained from the States.

- Persons 64 years of age or over on January 1, 1980 who reported receiving social security or railroad retirement income in 1980.

- Persons who reported coverage by Medicare in two or more rounds and reported a Medicare ID number in two or more rounds.

- Persons who (1) reported Medicare coverage or a Medicare ID number in at least one round or who reported Medicare as a source of payment for at least one utilization, and (2) were either 64 years of age or over on January 1 or had end-stage renal disease or were classified as disabled workers.

Medicare enrollees with data in the Medicare Master Identification file had their Medicare eligibility periods taken directly from that file. Enrollees with no data in that file who were 64 years of age or over on January 1, 1980 were classified as covered by Medicare during all of 1980. Enrollees with no data in that file who became age 65 during 1980 were classified as covered from their 65th birthday until the end of 1980. Other enrollees who were less than 65 years of age and had no eligibility data in the Master Identification File were classified as covered during all of 1980.

# APPENDIX IV

# RELIABILITY OF ESTIMATES

## APPENDIX IV

## RELIABILITY OF ESTIMATES

The estimates presented in this report are based on a probability sample of the population and hence are subject to sampling variability. The sample used in this survey is one of a large number of possible samples that could have been selected using the same sample design. Estimates derived from different possible samples would differ from each other. The standard error of a survey estimate is a measure of the variation among the estimates from all possible surveys. Thus, the standard error is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The relative standard error is defined as the standard error of the estimate divided by the absolute value of the quantity being estimated. Tables of estimated relative standard errors for estimates presented in this report follow this discussion (Tables III through XVII). The estimated standard error of a sample statistic can be found by multiplying the estimated relative standard error by the absolute value of the statistic. The precision of a statistic with a relative standard error of 5 percent or less is usually considered to be excellent; 6 to 15 percent, good; 16 to 25 percent, fair; and more than 25 percent, poor.

The sample estimate and the estimate of its standard error together permit the construction of an interval estimate with prescribed confidence that the interval includes the average result of all possible samples (for a given sample design). These interval estimates are such that:

- In approximately two-thirds of the possible samples, an interval from one standard error below the estimate to one standard error above the estimate would include the average value of all possible samples. Such as interval is called a 67-percent confidence interval.

- Approximately nineteen-twentieths of the possible sample intervals from two standard errors below the estimate to two standard errors above the estimate would include the average value of all possible samples. Such as interval is called a 95-percent confidence interval.

- For almost all the possible samples, the interval from three standard errors below the estimate to three standard errors above the estimate would include the average value of all possible samples.

Estimated relative standard errors have been provided since they are free of the effects of scale and are more readily interpretable. For example, an estimate of $10 per visit with a standard error of 10 would have a relative standard error of 1.0 and would generally be regarded as being unreliably estimated. On the other hand, an estimate of $100 per

visit also with a standard error of 10 would have a relative standard error of 0.10 and would usually be considered relatively reliable.

In general, estimates for small subgroups tend to be relatively unreliable. However, the magnitude of the sampling error that is tolerable depends on the conclusions being drawn. The reader should be aware that some estimates in this report may have relative standard errors in excess of 25 percent. Statistics with relative standard errors that are this large are generally viewed as not precisely estimated and should be interpreted cautiously. Estimates with a relative standard error greater than 50 percent or which are based on fewer than 20 observations are considered unreliable and have been suppressed.

The standard error of the difference between statistics can be approximated by the square root of the sum of squares of the standard error estimates for the two statistics. This approximation ignores the covariance between the two statistics. The approximation will be conservative (too large) for positive correlated statistics and liberal (too small) for negatively correlated statistics.

Table 9

Percent relative standard errors for Table A, persons ever enrolled in Medicaid and mean length of enrollment, by enrollment duration: Noninstitutionalized Medicaid population, United States, 1980

| Enrollment duration | Persons ever enrolled | | Mean length of enrollment in days |
|---|---|---|---|
| | Millions | Percent | |
| Total ever enrolled | 5.32 | 0.00 | 1.24 |
| Total full year | 6.17 | 3.71 | 0.00 |
| Total part year | 9.31 | 7.13 | 3.63 |
| 1 - 90 days | 12.96 | 10.84 | 2.96 |
| 91 - 180 days | 13.24 | 10.45 | 2.35 |
| 181 - 270 days | 13.83 | 12.84 | 1.35 |
| 271 - 365 days | 17.08 | 11.02 | 0.96 |

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 10

Percent relative standard errors for Table B, percent distribution for persons ever enrolled full and part year and mean length of enrollment, by age: Noninstitutionalized Medicaid population, United States, 1980

| Age | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Total | 5.32 | 3.71 | 7.13 | 3.63 |
| Under 6 years | 8.27 | 4.63 | 9.55 | 5.92 |
| 6-17 years | 7.12 | 5.43 | 13.20 | 6.06 |
| 18-21 years | 9.42 | 9.06 | 11.67 | 7.10 |
| 22-44 years | 6.84 | 6.78 | 10.18 | 4.15 |
| 45-64 years | 9.74 | 5.19 | 9.69 | 8.39 |
| 65 years or over | 8.18 | 4.42 | 9.35 | 6.26 |

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 11

Percent relative standard errors for Table C, percent distribution for persons ever enrolled full and part year and mean length of enrollment, by family income characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Employment characteristics | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Family income | | | | |
| Total | 5.32 | 3.71 | 7.13 | 3.63 |
| $0-$2,999 | 10.48 | 6.50 | 15.40 | 9.87 |
| $3-$4,999 | 8.13 | 4.83 | 15.48 | 6.91 |
| $5-$6,999 | 14.27 | 5.19 | 13.90 | 7.68 |
| $7-$9,999 | 13.75 | 9.39 | 19.06 | 7.81 |
| $10-$14,999 | 11.79 | 6.97 | 7.24 | 8.57 |
| $15,000 or more | 8.77 | 6.00 | 8.75 | 5.33 |
| Percent of family income relative to level | | | | |
| Total | 5.32 | 3.71 | 7.13 | 3.63 |
| 0-55 percent | 11.38 | 5.24 | 18.08 | 11.13 |
| 56-75 percent | 10.80 | 6.07 | 16.70 | 7.55 |
| 75-100 percent | 14.01 | 7.98 | 18.57 | 13.65 |
| 101-150 percent | 9.02 | 5.44 | 8.86 | 4.64 |
| 151-200 percent | 10.74 | 8.56 | 11.79 | 8.20 |
| Greater than 200 percent | 8.51 | 6.40 | 7.73 | 4.88 |

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 12

Percent relative standard errors for Table D, percent distribution for persons ever enrolled full and part year and mean length of enrollment by, employment characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Employment characteristics | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Total* | 5.48 | 3.88 | 6.63 | 3.87 |
| Total employed | 7.07 | 7.55 | 7.10 | 4.13 |
| Full time | 9.32 | 10.50 | 6.97 | 5.75 |
| Part time | 8.50 | 7.46 | 11.08 | 6.90 |
| Unemployed | 11.17 | 6.00 | 12.75 | 8.30 |
| Total not in labor force | 6.28 | 3.71 | 8.69 | 4.73 |
| Under 65 years | 7.20 | 5.16 | 12.00 | 5.20 |
| 65 years or over | 8.01 | 4.30 | 10.17 | 7.33 |

*Excludes persons under 14 years of age.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 13

Percent relative standard errors for Table E, percent distribution for persons ever enrolled full and part year and mean length of enrollment, by aid category: Noninstitutionalized Medicaid population, United States, 1980

| Aid category | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Total | 5.32 | 3.71 | 7.13 | 3.63 |
| Cash AFDC | 6.25 | 4.06 | 10.06 | 4.77 |
| Cash SSI | 8.60 | 2.62 | 20.19 | 6.69 |
| Cash State-only | 33.14 | 16.33 | 19.13 | 9.96 |
| Noncash AFDC | 12.95 | 18.63 | 11.47 | 8.63 |
| Noncash SSI | 15.76 | 6.74 | 13.34 | 12.81 |
| Other non-cash* | 10.83 | 17.43 | 4.06 | 5.45 |
| Total | 5.32 | 3.71 | 7.13 | 3.63 |
| AFDC** | 5.71 | 4.77 | 9.74 | 4.52 |
| SSI** | 7.73 | 2.48 | 13.21 | 5.97 |
| All other | 13.70 | 15.95 | 6.06 | 6.78 |
| Total | 5.32 | 3.71 | 7.13 | 3.63 |
| Cash | 5.88 | 3.02 | 8.86 | 4.25 |
| Noncash | 9.26 | 9.82 | 5.27 | 4.80 |

* Other noncash refers to recipients whose specific aid category could not be identified. These could include AFDC, SSI, or State-only aid categories.

** Includes both cash and noncash recipients.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 14

Percent relative standard errors for Table F, percent distribution for persons ever enrolled full and part year and mean length of enrollment, by health insurance coverage: Noninstitutionalized Medicaid population, United States, 1980

| Health insurance coverage* | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| All enrollees | 5.32 | 3.71 | 7.13 | 3.63 |
| Medicaid only | 7.51 | 4.31 | 12.41 | 4.98 |
| Medicaid and Medicare | 7.69 | 3.83 | 8.51 | 5.52 |
| Medicaid and private | 8.49 | 8.88 | 8.01 | 5.01 |
| Medicaid and other | 16.55 | 8.45 | 14.59 | 9.73 |

*These categories are mutually exclusive in descending order. Refer to Appendix I, Definition of Terms.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 15

Percent relative standard errors for Table G,
mean restricted activity days for persons ever enrolled:
Noninstitutionalized Medicaid population, United States, 1980

| Aid category | All enrollees | Mean restricted activity days | |
|---|---|---|---|
| | | Full year | Part year |
| All enrollees | 7.33 | 8.45 | 9.30 |
| AFDC | 6.97 | 8.38 | 10.25 |
| SSI | 8.89 | 10.55 | 13.11 |
| All other | 11.11 | 23.03 | 11.94 |

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 16

Percent relative standard errors for Table H, hospital discharges per 1,000 enrollees ever enrolled, by enrollment duration and aid category: Noninstitutionalized Medicaid population, United States, 1980

| Aid category | Per 1,000 enrollees | Per 1,000 full-time enrollees | Per 1,000 part-year enrollees | | |
|---|---|---|---|---|---|
| | | | Total | When enrolled | When not enrolled |
| All enrollees | 6.95 | 8.42 | 10.38 | 11.70 | 15.03 |
| AFDC | 9.89 | 10.79 | 15.24 | 16.14 | 27.37 |
| SSI | 9.48 | 11.14 | 20.38 | 25.90 | 30.94 |
| All other | 14.29 | 45.36 | 12.42 | 16.96 | 16.35 |

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 17

Percent relative standard errors for Table J, ambulatory visits per enrollee ever enrolled, by enrollment duration and aid category: Noninstitutionalized Medicaid population, United States, 1980

| Aid category | Per enrollee | Per full-year enrollee | Per part-year enrollee | | |
|---|---|---|---|---|---|
| | | | Total | When enrolled | When not enrolled |
| All enrollees | 5.10 | 6.07 | 6.24 | 7.02 | 8.59 |
| AFDC | 6.02 | 7.19 | 7.19 | 8.65 | 12.14 |
| SSI | 8.33 | 8.12 | 17.65 | 21.79 | 27.63 |
| All other | 8.90 | 19.43 | 9.26 | 12.30 | 9.34 |

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 18

Percent relative standard errors for Table 1, percent distribution for persons ever enrolled full and part year and mean length of enrollment, by selected demographic characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Select demographic characteristics | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Total | 5.32 | 3.71 | 7.13 | 3.63 |
| Sex | | | | |
| Male | 6.15 | 4.58 | 7.98 | 4.20 |
| Female | 5.55 | 3.54 | 7.27 | 4.13 |
| Race | | | | |
| White | 6.46 | 4.81 | 7.70 | 3.56 |
| Nonwhite | 9.64 | 3.59 | 10.11 | 7.50 |
| Ethnicity | | | | |
| Non-Hispanic | 5.62 | 3.65 | 6.84 | 4.30 |
| Hispanic | 21.72 | 7.37 | 17.52 | 8.09 |
| Region | | | | |
| Northeast | 9.32 | 5.91 | 12.97 | 4.55 |
| North Central | 10.08 | 6.15 | 9.36 | 4.95 |
| South | 12.10 | 3.87 | 9.03 | 6.80 |
| West | 13.62 | 10.57 | 18.83 | 7.52 |

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 19

Percent relative standard errors for Table 2, percent distribution for persons ever enrolled full and part year and mean length of enrollment, by selected family characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Selected family characteristics | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| Sex of family head | | | | |
| All families | 5.32 | 3.71 | 7.13 | 3.63 |
| Male headed | 6.79 | 4.96 | 7.10 | 3.99 |
| Female headed | 6.97 | 3.51 | 8.95 | 5.09 |
| All families with children under 18 years | 5.91 | 4.47 | 9.21 | 4.24 |
| Male headed | 7.89 | 6.98 | 9.93 | 4.85 |
| Female headed | 7.94 | 3.96 | 11.38 | 5.80 |
| All families with no children under 18 years | 7.56 | 4.43 | 7.05 | 4.82 |
| Male headed | 9.16 | 5.47 | 7.94 | 5.95 |
| Female headed | 10.33 | 6.15 | 10.96 | 6.96 |
| Family size | | | | |
| All families | 5.32 | 3.71 | 7.13 | 3.63 |
| 2 or less children | 6.28 | 3.46 | 6.03 | 4.03 |
| 3-4 children | 8.90 | 5.73 | 11.21 | 5.21 |
| More than 4 children | 15.75 | 7.98 | 25.15 | 14.38 |
| Education of family head | | | | |

(continued)

Table 19 (continued)

Percent relative standard errors for Table 2, percent distribution for persons ever enrolled full and part year and mean length of enrollment, by selected family characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Selected family characteristics | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|
| | | Full year | Part year | |
| All families* | 5.34 | 3.71 | 7.14 | 3.66 |
| Less than grade 8 | 11.25 | 4.28 | 11.37 | 7.65 |
| Completed grade 8 | 12.04 | 7.59 | 17.81 | 11.64 |
| Some high school | 8.78 | 5.87 | 13.08 | 5.04 |
| High school graduate | 8.20 | 4.82 | 7.28 | 5.61 |
| College or above | 14.53 | 9.20 | 12.46 | 10.71 |
| Marital status or family head | | | | |
| All families* | 5.34 | 3.71 | 7.14 | 3.66 |
| Never married | 12.01 | 5.14 | 11.46 | 6.75 |
| Formerly married | 7.22 | 4.29 | 10.07 | 5.29 |
| Married | 7.22 | 5.58 | 8.38 | 4.22 |

*Excludes heads of families under 17 years of age.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 20

Percent relative standard errors for Table 3, percent distribution for persons ever enrolled part year by selected demographic characteristics, by health insurance coverage status when not enrolled: Noninstitutionalized Medicaid population, United States, 1980

| Selected demographic characteristics | All part-year enrollees, millions | Percent distribution | |
|---|---|---|---|
| | | Insured when not Medicaid enrolled | Uninsured when not Medicaid enrolled |
| Total | 9.31 | 4.81 | 7.91 |
| Age | | | |
| Under 6 | 12.63 | 12.70 | 12.39 |
| 6-17 | 14.61 | 10.93 | 13.21 |
| 18-21 | 15.57 | 12.65 | 13.24 |
| 22-44 | 14.32 | 6.18 | 9.10 |
| 45-64 | 13.84 | 10.17 | 16.20 |
| 65 or over | 11.79 | 0.00 | + |
| Sex | | | |
| Male | 11.16 | 5.78 | 9.54 |
| Female | 9.22 | 5.08 | 8.35 |
| Race | | | |
| White | 10.92 | 5.38 | 9.10 |
| Nonwhite | 14.47 | 8.49 | 12.97 |
| Ethnicity | | | |
| Non-Hispanic | 10.13 | 5.16 | 9.38 |
| Hispanic | 20.06 | 23.81 | 16.37 |
| Region | | | |
| Northeast | 14.27 | 10.61 | 18.78 |
| North Central | 13.14 | 7.47 | 17.11 |
| South | 15.56 | 8.57 | 19.06 |
| West | 24.91 | 8.82 | 8.55 |

+ Not applicable.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 21

Percent relative standard errors for Table 4, percent distribution for persons ever enrolled part year by selected family characteristics, by health insurance coverage status when not enrolled: Noninstitutionalized Medicaid population, United States, 1980

| Selected family characteristics | All part-year enrollees, millions | Percent distribution | |
|---|---|---|---|
| | | Insured when not Medicaid enrolled | Uninsured when not Medicaid enrolled |
| Employment | | | |
| Total* | 9.41 | 4.48 | 8.83 |
| Total employed | 11.29 | 6.31 | 10.08 |
| Full time | 12.92 | 7.13 | 11.43 |
| Part time | 14.39 | 10.23 | 16.27 |
| Unemployed | 17.07 | 17.20 | 17.20 |
| Total not in labor force | 10.83 | 5.05 | 14.42 |
| Under 65 years | 14.66 | 9.20 | 12.73 |
| 65 years or over | 11.56 | 0.00 | + |
| Percent of family income relative to poverty level | | | |
| Total | 9.31 | 4.81 | 7.91 |
| 0-55 percent | 20.50 | 15.10 | 19.29 |
| 56-75 percent | 19.93 | 20.93 | 14.80 |
| 76-100 percent | 26.29 | 13.14 | 18.94 |
| 101-150 percent | 13.01 | 7.08 | 16.33 |
| 151-200 percent | 15.34 | 12.61 | 18.22 |
| Greater than 200 percent | 11.74 | 6.01 | 15.49 |

+ Not applicable.
* Excludes persons under 14 years of age.

(continued)

Table 21 (continued)

Percent relative standard errors for Table 4, percent distribution for persons ever enrolled part year by selected family characteristics, by health insurance coverage status when not enrolled: Noninstitutionalized Medicaid population, United States, 1980

| Selected family characteristics | All part-year enrollees, millions | Percent distribution | |
|---|---|---|---|
| | | Insured when not Medicaid enrolled | Uninsured when no Medicaid enrolle |
| Sex of family head | | | |
| Total* | 9.31 | 4.81 | 7.91 |
| Male headed | 10.38 | 5.36 | 10.76 |
| Female headed | 10.77 | 7.45 | 9.63 |
| All families with children under 18 years | 11.23 | 7.51 | 9.22 |
| Male headed | 12.92 | 8.30 | 11.67 |
| Female headed | 13.50 | 11.74 | 12.19 |
| All families with no children under 18 years | 11.13 | 4.47 | 16.59 |
| Male headed | 12.45 | 5.00 | 30.15 |
| Female headed | 15.56 | 7.49 | 17.09 |
| Marital status of family head | | | |
| Total** | 9.31 | 4.78 | 7.90 |
| Never married | 16.07 | 10.78 | 11.87 |
| Formerly married | 11.99 | 7.67 | 11.81 |
| Married | 11.57 | 6.19 | 12.14 |

* Excludes persons under 14 years of age.
** Excludes family heads under 17 years of age.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 22

Percent relative standard errors for Table 5, selected ambulatory visits per enrollee ever enrolled, by enrollment duration and aid category: Noninstitutionalized Medicaid population, United States, 1980

| Aid category and type of service | Visits per enrollee | Visits per full-year enrollee | Total | Visit per part-year enrollee | |
|---|---|---|---|---|---|
| | | | | When enrolled | When not enrolled |
| All enrollees | | | | | |
| Emergency room | 4.96 | 6.21 | 7.71 | 10.05 | 11.05 |
| Hospital out-patient | 11.40 | 14.37 | 11.71 | 12.18 | 15.72 |
| Physician | 5.18 | 5.91 | 6.58 | 7.22 | 8.80 |
| Other provider | 12.44 | 16.39 | 15.47 | 18.16 | 24.27 |
| Total ambulatory | 5.10 | 6.07 | 6.24 | 7.02 | 8.59 |
| AFDC | | | | | |
| Emergency room | 6.69 | 7.73 | 9.75 | 12.08 | 16.49 |
| Hospital out-patient | 10.63 | 13.24 | 13.33 | 15.09 | 20.47 |
| Physician | 7.07 | 8.68 | 7.06 | 8.25 | 10.91 |
| Other provider | 16.26 | 19.15 | 23.72 | 26.70 | 43.45 |
| Total ambulatory | 6.02 | 7.19 | 7.19 | 8.65 | 12.14 |
| SSI | | | | | |
| Emergency room | 10.19 | 12.28 | 19.99 | 24.42 | 28.35 |
| Hospital out-patient | 18.44 | 19.76 | 31.65 | 31.74 | 39.61 |
| Physician | 7.93 | 8.15 | 18.52 | 20.32 | 28.36 |
| Other provider | 20.79 | 21.79 | 51.30 | 51.96 | 76.52 |
| Total ambulatory | 8.33 | 8.12 | 17.65 | 21.79 | 27.63 |
| All other | | | | | |
| Emergency room | 11.61 | 21.27 | 13.95 | 19.41 | 18.26 |
| Hospital out-patient | 22.52 | 41.07 | 21.99 | 25.81 | 26.28 |
| Physician | 9.90 | 17.70 | 10.96 | 15.69 | 8.90 |
| Other provider | 20.42 | 47.95 | 22.23 | 31.70 | 25.85 |
| Total ambulatory | 8.90 | 19.43 | 9.26 | 12.30 | 9.34 |

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

Table 23

Percent relative standard errors for Table 6, percent distribution for persons ever enrolled full and part year and mean length of enrollment, by selected Medicaid program characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Program characteristics | Number of States | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrollees in days |
|---|---|---|---|---|---|
| | | | Full year | Part year | |
| Total* | - | 5.61 | 3.77 | 7.34 | 3.72 |
| States without medically needy programs | - | 16.22 | 5.01 | 11.96 | 6.88 |
| States with medically needy programs | - | 7.67 | 4.60 | 8.46 | 4.26 |
| Spend-down period, 1-3 months | - | 16.29 | 10.45 | 19.65 | 8.04 |
| Spend-down period, 3-6 months | - | 9.14 | 3.68 | 6.67 | 3.88 |
| Positive medically needy band | - | 15.58 | 5.10 | 7.96 | 4.90 |
| Negative medically needy band | - | 10.07 | 5.82 | 11.22 | 5.76 |
| States with unborn child coverage | - | 7.64 | 4.48 | 8.22 | 3.92 |
| States without unborn child coverage | - | 18.98 | 5.26 | 12.94 | 7.81 |

- Not applicable.

* some of the persons included as Medicaid State-only enrollees in previous tables are excluded here.

(continued)

Table 23 (continued)

Percent relative standard errors for Table 6, percent distribution for persons ever enrolled full and part year and mean length of enrollment, by selected Medicaid program characteristics: Noninstitutionalized Medicaid population, United States, 1980

| Program characteristics | Number of States | Total, millions | Percent distribution | | Mean length of enrollment for part-year enrolless in days |
|---|---|---|---|---|---|
| | | | Full year | Part year | |
| Total* | - | 5.61 | 3.77 | 7.34 | 3.72 |
| States with unemployed parents coverage | - | 7.09 | 4.89 | 8.93 | 3.89 |
| States without unemployed parents coverage | - | 13.97 | 4.31 | 10.19 | 6.54 |
| States with State-only programs** | - | 23.76 | 6.46 | 14.52 | 3.79 |
| States without State-only programs*** | - | 6.70 | 4.22 | 8.07 | 10.80 |

- Not applicable.
* Some of the persons included as Medicaid State-only enrollees in previous tables are excluded here.
** Includes District of Columbia. Does not include Arizona, Puerto Rico, or territories.
*** Information on the presence of State-only programs was missing for two States.

SOURCE: National Medical Care Utilization and Expenditures Survey: Data from the national household survey component.

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